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This Issue in Brief

Railway wage changes, 1941 to 1946

Since 1941 there have been three major movements in the railroad wage structure, resulting in wage increases for substantially all workers within the industry. These three movements have increased hourly rates in varying amounts: 37½ cents for the highest paid occupations to 39½ cents for the lowest paid categories. During the period the average straight-time hourly earnings increased from $0.752 in 1941 to an estimated $1.101 in 1946. Page 335.

Elapsed time and cost in residential construction

Building permit surveys in 63 cities indicate a completion period of more than 7 months for approximately one-half of the residential projects. Construction started on about 50 percent of all projects during the same month the permits were issued and 25 percent in the succeeding month. Average estimated construction cost of $6,857, based on September-December 1945 permits, increased to $6,916 by March 1946. Estimated construction costs were generally 25 percent higher than permit valuations. During March, 40 percent of the dwelling units were in the $6,001 to $9,000 cost range. By mid-May only 3 percent of the March dwelling units were completed. By mid-July 8 percent had been fully completed and 7 percent were occupied. Practically all builders reported material scarcities. Page 346.

Labor requirements in cement production, 1945–46

Under operating conditions of 1945 and early 1946, one hundred barrels of portland cement, delivered to a construction site, required approximately 100 man-hours of labor in all stages of extraction, processing, and transportation. The 52 plants covered in the survey produced at an annual rate of 47.5 million barrels. For this production a total of about 23 million man-hours of employment was required at the cement plant, or 48.4 man-hours per hundred barrels of cement. Manufacturing operations required about 12 percent fewer man-hours in 1945–46 than 12 years previously. As might be expected, the study showed wide variation between individual plants. The basic factors causing these variations, such as size of plant, rate of production, age of plant, type of fuel, and degree of mechanization, were the same as those found in the earlier study. Page 355.

Wage structure of electric light and power industry, July 1945

Privately owned electric light and power systems paid an average of $1.04 an hour to men in operating, maintenance, and custodial jobs. Journeymen linemen, over 11 thousand in number, earned $1.19 an hour on a straight-time basis. Wage rates for nonoffice occupations were generally highest in the Pacific region and lowest in the Southeast. The ranking of plant occupations in the average system wage scale showed load dispatchers and watch engineers in the top position, janitors were at the bottom. Men hand bookkeepers typically earned as much as skilled trouble men, but women office workers, including the highest skilled, occupied positions at the lower end of the wage ladder, below truck drivers. The spread between occupational wage rates was considerably wider in the South than in the industry as a whole. To a lesser extent this was also a characteristic of the wage scales of the larger systems. Page 369.

Equal pay for women workers

The principle of equal pay for equal work as relating to women received great impetus during World War II, especially in those branches of Government directly responsible for employment of large numbers of women in war production, and through the position taken by the National War Labor Board. Such provisions have also been incorporated in numerous collective agreements between employers and trade-unions. The status of women employees in public service and teaching and of State and National legislation as to equal pay is also analyzed. Page 380.

Prices in the second quarter of 1946

Prices advanced more rapidly during the second quarter of 1946 at both primary market and retail levels than in any quarter since early 1942 before general price control was inaugurated. Primary market prices rose 3.7 percent on the average, with increases for all major commodity groups, while retail prices of consumer goods advanced 2.4 percent. Prices of industrial goods, generally stable during the war, increased almost as much as agricultural products. The advances generally reflected wartime pressures toward higher prices which brought about gradual relaxation of price controls. Page 409.

Current Statistics of Labor Interest in Selected Periods [1]

[Available in reprint form]

Item	Unit or base period	1946			1945	1939: Average for year
		July	June	May	July	
Employment and unemployment						
Civilian labor force (BC): Total	Thousands	60,400	59,300	57,630	55,220	[2] 54,230
Male	do	43,000	42,030	40,950	35,140	[2] 40,950
Female	do	17,400	17,270	16,680	20,080	[2] 13,280
Employed [3]	do	58,130	56,740	55,320	54,270	[2] 46,930
Male	do	41,240	40,030	39,060	34,660	[2] 35,600
Female	do	16,890	16,710	16,260	19,610	[2] 11,330
Nonagricultural	do	48,190	46,760	46,440	44,430	[2] 37,430
Agricultural	do	9,940	9,980	8,880	9,840	[2] 9,500
Unemployed	do	2,270	2,560	2,310	950	[2] 7,300
Civilian employment in nonagricultural establishments: Total [3]	do	39,325	39,124	38,633	38,474	30,353
Manufacturing	do	14,258	14,119	13,901	15,331	10,078
Mining	do	819	812	718	784	845
Construction [4]	do	2,041	1,910	1,742	911	1,753
Transportation and public utilities	do	3,942	3,919	3,873	3,858	2,912
Trade	do	7,723	7,753	7,724	6,975	6,618
Finance, service, and miscellaneous	do	5,151	5,131	5,134	4,672	4,160
Federal, State, and local government, excluding Federal force-account construction	do	5,391	5,480	5,541	5,943	3,988
Military personnel	do	3,105	3,422	3,853	12,295	367
Production-worker employment:						
Manufacturing	do	11,539	11,408	11,227	12,459	8,192
Bituminous-coal mining	do	334	342	259	323	371
Class I steam railroads, including salaried employees (ICC)	do	1,349	1,330	1,307	1,451	988
Hired farm workers (BAE)	do	2,711	2,453	1,975	2,544	[5] 3,348
Hours and earnings						
Average weekly hours:						
Manufacturing	Hours	39.4	40.0	39.7	44.0	37.7
Bituminous-coal mining	do		42.9	28.1	[6] 46.2	27.1
Retail trade	do		40.9	40.3	[6] 41.9	43.0
Building construction (private)	do	38.2	38.2	37.5	40.1	32.6
Average weekly earnings:						
Manufacturing		$43.07	$43.35	$42.48	$45.45	$23.86
Bituminous-coal mining			$65.07	$34.98	[6] $59.11	$23.88
Retail trade			$32.39	$31.45	[6] $29.40	$21.17
Building construction (private)		$56.25	$55.23	$53.63	$55.57	$30.39
Average hourly earnings:						
Manufacturing		$1.093	$1.084	$1.071	$1.033	$0.633
Bituminous-coal mining			$1.489	$1.314	[6] $1.285	$0.886
Retail trade			$0.877	$0.861	[6] $0.733	$0.536
Building construction (private)		$1.473	$1.444	$1.431	$1.387	$0.933
Average straight-time hourly earnings in manufacturing, using—						
Current employment by industry			$1.053	$1.042	[6] $0.969	$0.622
Employment by industry as of January 1941			$1.057	$1.047	[6] $0.931	$0.640
Quarterly farm wage rate, per day without board (BAE)		$4.84			$4.48	[5] $1.59
Industrial injuries and labor turn-over						
Industrial injuries in manufacturing, per million man-hours worked			17.7	17.9	[6] 17.0	15.4
Labor turn-over per 100 employees in manufacturing:						
Total separations		5.9	5.7	6.3	7.7	[5] 3.3
Quits		4.5	4.0	4.2	5.2	[5] 0.7
Lay-offs		0.8	1.2	1.5	1.5	[5] 2.5
Total accessions		7.8	6.7	6.1	5.8	[5] 4.2
Labor-management disputes						
Work stoppages beginning in month:						
Number		480	350	360	523	218
Number of workers involved	Thousands	185	150	560	325	98
All work stoppages during month:						
Number of man-days idle	do	3,300	3,800	11,500	1,769	1,484
Man-days idle as percent of available working time		0.48	0.65	1.81	0.24	0.28

See footnotes at end of table.

Current Statistics of Labor Interest in Selected Periods [1]—Continued

Item	Unit or base period	1946			1945	1939: Average for year
		July	June	May	July	
Prices						
Consumers' price index (moderate income families in large cities): All items	1935–39=100	141.0	133.3	131.7	129.4	99.4
Food	1935–39=100	165.7	145.6	142.6	141.7	95.2
Clothing	1935–39=100	157.9	157.2	155.7	145.9	100.5
Rent	1935–39=100	-------	108.5	-------	[6] 108.3	104.3
Fuel, electricity, and ice	1935–39=100	113.3	110.5	110.3	111.2	99.0
Housefurnishings	1935–39=100	156.9	156.1	153.7	145.6	101.3
Miscellaneous	1935–39=100	127.8	127.9	127.2	124.3	100.7
Retail food price index (large cities): All foods	1935–39=100	165.7	145.6	142.6	141.7	95.2
Cereals and bakery products	1935–39=100	126.1	122.1	115.2	109.1	94.5
Meats	1935–39=100	173.7	[7] 134.0	[7] 133.5	131.6	96.6
Dairy products	1935–39=100	179.1	147.8	138.6	133.4	95.9
Eggs	1935–39=100	161.0	147.1	140.3	157.2	91.0
Fruits and vegetables	1935–39=100	188.4	183.5	185.7	191.8	94.5
Beverages	1935–39=100	126.0	125.4	125.4	124.7	95.5
Fats and oils	1935–39=100	137.9	126.4	126.1	124.0	87.7
Sugar and sweets	1935–39=100	138.5	136.2	135.9	126.5	100.6
Wholesale price index: All commodities	1926=100	124.3	112.9	111.0	105.9	77.1
All commodities other than farm products	1926=100	117.0	106.7	105.1	100.7	79.5
All commodities other than farm products and foods	1926=100	108.8	105.6	103.9	99.7	81.3
Farm products	1926=100	157.0	140.1	137.5	129.0	65.3
Foods	1926=100	140.2	112.9	111.5	106.9	70.4
National income and expenditures						
National income payments (BFDC)	Millions	$13,972	$14,478	$12,768	$13,585	[5] $5,806
Consumer expenditures for goods and services (BFDC)	do	-------	[8] $30,165	-------	[8] $25,480	[5] $15,406
Retail sales (BFDC)	do	$7,654	$7,736	$7,926	$5,985	[5] $3,349
Production						
Industrial production index, unadjusted (FR): Total	1935–39=100	175	171	159	211	100
Manufactures	1935–39=100	180	176	166	223	109
Minerals	1935–39=100	149	143	115	145	106
Bituminous coal (BM)	Thousands of short tons	12,300	50,350	19,790	11,490	32,905
Car loadings index, unadjusted (FR)	1935–39=100	143	137	107	143	101
Electric energy (FPC): Total	Millions of kw.-hr.	22,572	21,441	21,288	23,044	[9]
Utilities (production for public use)	do	18,610	17,623	17,675	18,956	[5] 10,443
Industrial establishments	do	3,961	3,839	3,613	4,088	[9]
Construction						
Construction expenditures	Millions	$1,146	$1,082	$978	$514	[5] $672
Value of urban building construction started	do	$353	$368	$371	$169	[9]
New nonfarm family dwelling units		63,800	68,000	74,300	23,300	[5] 44,200

[1] Source: Bureau of Labor Statistics unless otherwise indicated. Abbreviations used: BC (Bureau of the Census); ICC (Interstate Commerce Commission); BAE (Bureau of Agricultural Economics); BFDC (Bureau of Foreign and Domestic Commerce); FR (Federal Reserve); BM (Bureau of Mines); FPC (Federal Power Commission). Most of the current figures are preliminary.

[2] 10-month average—March to December 1940. Not comparable with later figures. Revisions are in process.

[3] Excludes employees on public emergency work, these being included in unemployed civilian labor force. Civilian employment in nonagricultural establishments differs from nonagricultural employment in civilian labor force mainly because of the inclusion in the latter of such groups as self-employed and domestic and casual workers.

[4] Includes workers employed by construction contractors and Federal force-account workers (nonmaintenance construction workers employed directly by the Federal Government). Other force-account nonmaintenance construction employment is included under manufacturing and other groups.

[5] July.

[6] June.

[7] Meat indexes for May are based on prices for 18 cities and for June on 23 cities, instead of the usual 56 cities covered. Retail food indexes other than meats are based on prices in 56 cities.

[8] Second quarter.

[9] Not available.

MONTHLY LABOR REVIEW

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Railway Wage Changes, 1941–46[1]

SINCE January 1941 there have been three major increases and many minor changes in the wages paid to railroad workers. The three major wage movements initiated by the railroad unions all involved issues other than wage rates. This article deals solely with the major changes that occurred in the level of wage rates in response to the war and immediate postwar situations.

The railroad labor organizations involved should be clearly identified at the outset. There are 5 organizations, representing the train and engine service employees, usually referred to as the "operating" unions. These 5 operating unions are the Brotherhood of Locomotive Engineers, Brotherhood of Railroad Trainmen, Brotherhood of Locomotive Firemen and Enginemen, Order of Railway Conductors of America, and Switchmen's Union of North America. During 1945 the operating employees averaged 314,948 out of the 1,364,877 persons employed by class I steam railways,[2] or 23 percent of the total.

Then there are 15 railroad labor organizations which have cooperated in their wage negotiations in recent years and which are referred to as "non-operating" unions. They are so-called because they represent employees not engaged directly in train and engine service. These 15 unions are the Order of Railroad Telegraphers; International Association of Machinists; International Brotherhood of Boilermakers, Iron Ship Builders and Helpers of America; International Brotherhood of Blacksmiths, Drop Forgers and Helpers; Sheet Metal Workers International Association; International Brotherhood of Electrical Workers of America; Brotherhood of Railway Carmen of America; Brotherhood of Firemen and Oilers, Roundhouse and Railway Shop Laborers; Brotherhood of Maintenance of Way Employees; Brotherhood of Railway and Steamship Clerks, Freight Handlers, Express and Station Employes; Brotherhood of Railroad Signalmen of America; Masters, Mates and Pilots of America; National Marine Engineers' Beneficial Association; International Longshoremen's Association; and Hotel and Restaurant Employees' International Alliance and Bartenders' International League of America.[3]

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[1] Prepared by James A. Hart of the Bureau's Labor Economics Staff.

[2] Wage Statistics of Class I Steam Railways, 1945 (Interstate Commerce Commission, Washington, 1946).

[3] These 15 non-operating unions and 3 of the operating unions (Firemen, Switchmen, and Conductors), are affiliated in the Railway Labor Executives Association. There is a nineteenth member, the American Association of Train Dispatchers, which has negotiated independently for wage changes during the period covered by this study.

The 1941 Movement

On June 10, 1941, the 5 operating unions, under the terms of the Railway Labor Act, served notices on the carriers asking for a 30-percent increase in all basic wage rates with a minimum increase of $1.80 per day.[4] The same day 14 of the non-operating unions requested an increase of 30 cents an hour and a minimum hourly wage of 70 cents. The Hotel and Restaurant Employees did not cooperate with the other "non-ops" but they pressed their case independently for wage increases at this time.

When the the National Mediation Board failed to settle the dispute, President Roosevelt, on September 11, 1941, appointed an emergency board to investigate and to make recommendations for its settlement. The board made its report to the President on November 5, 1941.

The emergency board recommended temporary increases of 7½ percent in the daily basic wage rates of the 5 operating unions and 9 cents per hour for the 14 non-operating unions. These increases were to be temporary in the sense that they were to expire on December 31, 1942, unless the carriers and unions agreed to their extension. The board further recommended that these increases be made retroactive to September 1, 1941.

Both the 5 operating unions and the 14 non-operating unions rejected these recommendations on the grounds (a) that the recommended increases were inadequate and (b) that the increases should be permanent in character. The 5 operating unions served notice that they would strike on December 7, 1941. The emergency board was reconvened by the President on November 27, 1941, with instructions to rehear the arguments of both sides to the controversy. In a conference with the President it was agreed that the board should act not primarily as a quasi-judicial body, as in the original hearings, but rather as a mediating agency in an effort to bring about an agreement between the parties.

After 2 days devoted to reargument the board offered to mediate. This offer was accepted by all parties. On December 5, 1941, the board reported that it had succeeded in bringing the parties to a settlement. By the terms of this agreement, the wage increases originally recommended by the emergency board would affect wages from September 1, 1941, to December 1, 1941. Effective December 1, 1941, the "ops" increase of 7½ percent would be replaced by a flat increase of 9½ cents per hour. On the same date the "non-ops" increase of 9 cents would be replaced by a 10-cents-per-hour raise. Moreover, these new increases, effective December 1, 1941, were to be permanent rather than temporary.

The 1943–44 Movement

On September 25, 1942, the 14 non-operating unions which engaged in the 1941 negotiations were joined by the Hotel and Restaurant Employees in serving notices on the carriers for an increase of 20 cents per hour and a minimum rate of 70 cents per hour. When negotiations broke down, an emergency board was appointed on February 20, 1943.

[4] The basic daily wage is the rate applied in calculating wages paid under the dual basis of pay.

The Stabilization Act of October 2, 1942, set forth various criteria for wage adjustments. These included cost-of-living adjustments under the Little Steel formula, remedying of substandard wages, removal of gross inequities, and aid in the effective prosecution of the war. The board found that only the last two criteria were applicable to railroad wages.

When the emergency board's hearings had been substantially completed, changes were made in the national wage stabilization policy. These changes emphasized the remedying of gross inequities by the making of wage adjustments to conform to "tested going rates" for particular occupations in local labor markets. The board found, however, that to apply this method to the national wage structure of the railroads with their distinctive occupations would in effect destroy the long-established wage relationships of railroad occupations and change existing wage differentials throughout the industry. The board therefore decided that it could apply the criterion of gross inequities only on the basis of the lag in railroad wages, especially after January 1941, as compared to wages in other industries and employments. It recommended, on May 24, 1943, an increase of 8 cents per hour retroactive to February 1, 1943. After carefully considering the existing wage stabilization policy in the light of the peculiar circumstances of the case before it, the board certified that its recommendations conformed to the standards of the national stabilization policy.

On June 22, 1943, the Economic Stabilization Director set aside this recommended increase on the ground that the changes in stabilization policy made in April and May no longer permitted adjustments for removing inequities on the basis of interindustry comparisons and limited adjustments to particular occupational rates for conformity to "tested going rates" in a given labor market.

Meanwhile the 5 operating unions had served notices on the carriers for increases of 30 percent, with a minimum increase of $3 per day. When negotiations failed, an emergency board in this dispute was appointed on May 21, 1943. During the course of the hearing on the case involving the 5 operating unions, the 8-cents-per-hour increase recommended for the non-ops was set aside. Guided largely by this action, the board for the operating brotherhoods handed a report to the President on September 25, 1943, recommending an increase of 4 cents per hour, retroactive to April 1, 1943, as the maximum allowable under the Little Steel formula. This increase was approved by the Economic Stabilization Director on October 16, 1943.

The 5 operating unions rejected the 4-cent increase and called a strike for December 30, 1943. President Roosevelt intervened at this point and offered to act as arbitrator. Only 2 of the operating unions, the Engineers and the Trainmen, accepted the President's offer. On December 27, 1943, the President handed down his award. It provided for the 4-cents-per-hour increase as recommended by the board plus an additional 5 cents per hour effective December 27, 1943, in lieu of overtime after 40 hours per week and payment of away-from-home expenses.

The remaining 3 operating unions (Conductors, Firemen, and Switchmen) refused to settle on the basis of the President's award. One ground of the refusal was a clause in the award which they claimed

would freeze wages of railroad workers for the duration of the war. Since their strike calls were not canceled, President Roosevelt issued an order placing all railroads under control of the War Department. This order came on December 27, just 3 days before a scheduled strike date, and the strike notices were canceled. On January 14, 1944, these 3 operating unions signed an agreement providing for the same wage increases contained in the award accepted by the Engineers and the Trainmen, Their agreement contained a specific reservation of the right to reopen the question of basic daily wage rates.

The dispute involving the 15 non-operating unions was finally settled on January 17, 1944. After the 8-cent increase recommended by the emergency board had been set aside by the Economic Stabilization Director, President Roosevelt appointed a second emergency board on October 16, 1943, to reconsider the claims of the non-operating unions.

This second emergency board conducted a rehearing of the case and submitted its recommendations on November 4, 1943. The recommendations called for wage increases on a sliding scale, ranging from 10 cents per hour for those workers drawing less than 47 cents per hour to 4 cents per hour for those receiving 97 cents and over, retroactive to February 1, 1943. These increases received the approval of the Economic Stabilization Director.

Rejecting this sliding scale of increases, the 15 non-operating unions voted to strike on December 30, 1943. As in the case of the 5 ops, President Roosevelt offered to arbitrate the dispute. While both sides agreed to arbitration in principle, they could not agree on just what points should be submitted to arbitration. Nevertheless, the 15 non-ops canceled their strike notices before the railways were seized by the Government, the seizure being associated directly with the strike calls of the Conductors, Firemen, and Switchmen.

After President Roosevelt had taken over the railroads, he reconvened the second emergency board for the non-ops, which began rehearings on January 13, 1944. On January 17 the parties reached a final settlement. By the terms of this agreement, the original recommendations of the second emergency board were accepted, retroactive to February 1, 1943, plus a payment in lieu of overtime after 40 hours per week, retroactive to December 27, 1943. As it worked out on a sliding scale, workers receiving less than 47 cents per hour got a 10-cent increase plus a 1-cent increase in lieu of overtime. At the top of the scale, those workers receiving 97 cents or over per hour got a 4-cents-per-hour increase, plus 5 cents in lieu of overtime. In effect, therefore, the final wage increases per hour ranged from 11 cents in the lowest category to 9 cents in the highest-paid group, as compared with the 8 cents recommended for the entire group by the first emergency board on May 24.

This agreement was approved on January 18, 1944, by the Economic Stabilization Director. On the same day, all wage disputes being settled, the railroads were returned to their private owners.

The Stabilization Act of 1944 reaffirmed the procedures of the Railway Labor Act for settling railroad wage disputes and stated that findings of agencies under the latter act should be conclusive without approval by authorities created under the Stabilization Act.

The 1946 Movement

During 1945 all of the 20 unions involved in the 1943–44 wage movement served notices on the carriers asking for wage increases and changes in working rules. The National Mediation Board succeeded in getting 18 of the 20 unions to arbitrate their wage demands and to defer action on changes in the working rules. But the Engineers and the Trainmen rejected the arbitration proposal, insisting that working-rules changes be considered at once.

The 15 non-operating unions signed an arbitration agreement with the carriers on January 26, 1946, providing that the arbitration board pass on one issue: "Request of the employees for an increase of 30 cents per hour to be added to all existing rates of pay." The agreement provided further that the arbitration board could award less than 30 cents per hour but that the increase granted must apply uniformly to all employees.

This arbitration board convened in Chicago on February 18, 1946. On the same day another arbitration board also convened in Chicago to hear the case of the 3 operating unions (Conductors, Switchmen, and Firemen). In their agreement with the carriers, the 3 operating unions submitted one issue for arbitration, a request that all basic daily wage rates be increased $2.50.

On April 3, both boards announced their awards. The board established for the non-operating unions granted an increase of 16 cents per hour. The board for the 3 operating unions granted an increase of $1.28 in basic daily rates (which on the basis of 8 hours per day amounted to 16 cents per hour).

Meanwhile the other 2 operating unions, the Engineers and the Trainmen, had set a strike for March 11, 1946. The President appointed an emergency board, on March 8, to investigate and report on that dispute. This board convened in Chicago on March 12, 1946, while the 2 arbitration boards were still in session. In fact, the 3 boards held their hearings in the same Chicago office building.

The emergency board for the Engineers and the Trainmen heard arguments and testimony on a demand for a basic daily wage increase of $2.50. In addition both the carriers and the 2 unions asked for numerous changes in working rules. The wage recommendation of this board, made on April 18, 1946, was necessarily influenced by the awards of the 2 arbitration boards handed down 15 days earlier. Accordingly, the increase recommended for the Engineers and the Trainmen was $1.28 per basic day (16 cents per hour in an 8-hour day).

It is worth noting that this recommendation was expressly made on two grounds: (a) to conform with the pattern established by the awards of the arbitration boards and (b) to use up the full 33-percent increase allowable since January 1941 under the cost-of-living formula set forth in Executive Order 9697, of February 14, 1946.

With respect to the rules changes, the emergency board did recommend a few changes but held that most of the proposals should be handled in negotiations between the unions and the carriers.

Both the Engineers and the Trainmen refused to accept the recommendations, characterizing them as "grossly inadequate." When the carriers refused to grant increases or rules changes beyond those

recommended by the board, the unions set a strike date for May 18, 1946.

Meanwhile the 18 unions which had been awarded 16 cents by the arbitration boards vigorously contended that the increase was inadequate. The 15 non-ops on April 15, 1946, served notices for 14 cents per hour above the 16 cents already received. Shortly thereafter the 3 ops which had received $1.28 per day (Conductors, Firemen, and Switchmen) served notices on the carriers for another $1.20 in their basic daily wage rates.

To avert the threatened strike on the Nation's railroads, President Truman intervened in the negotiations between the carriers and the 2 unions which had set a strike date. On May 17, 1946, he took over the railroads and placed them under control of the Office of Defense Transportation. At the request of the President, the Engineers and the Trainmen postponed their strike date from May 18 to May 23. Negotiations were resumed but no agreement had been reached by May 23, and the strike of the 2 unions went into effect. The other 18 unions, whose wage negotiations were still in progress, did not strike; but the key positions of the Engineers and the Trainmen forced the Nation's railways to a virtual standstill and only a few trains ran during the 2-day strike.

President Truman, in a radio speech on May 24, appealed to the rank and file of the 2 unions, urging them to return to their jobs. He asserted that he would order the Army to run the trains if they did not return by 4 p. m. the next day. Just prior to that deadline it was announced that the Engineers and the Trainmen had signed an agreement with the carriers, ending the strike just 48 hours after it started.

By the terms of their agreement, dated May 25, 1946, the Engineers and the Trainmen received an increase of 18½ cents in basic wage rates and accepted a moratorium on changes in working rules for 1 year. The agreement specified that 16 cents of the increase was based on the recommendations of the emergency board, retroactive to January 1, 1946; the other 2½ cents was in lieu of rules changes as recommended by President Truman on May 22, 1946, and was retroactive to that date.

Earlier on the same day the other 18 unions had already signed final agreements with the carriers. The 3 ops (Conductors, Firemen, and Switchmen) received 2½ cents per hour, retroactive to May 22, 1946, based on President Truman's recommendation. This was in exchange for a rules moratorium of 1 year. Taken with the 16 cents awarded by the arbitration board, this made a total increase of 18½ cents per hour. The 15 non-ops also received 2½-cents-per-hour increases retroactive to May 22, 1946, which made a total final increase of 18½ cents per hour for these unions. It may be noted that no limitation on changes in working rules appeared in the agreement between the carriers and the 15 non-ops.

With all major wage disputes settled, the railroads were returned to private ownership on May 26, 1946.

Wage Gains Since 1941

As a result of these wage changes, the Interstate Commerce Commission estimates that average straight-time hourly earnings for employees of class I steam railways (exclusive of executives, general officers, and assistants) will be $1.101 in 1946. This compares with $0.916 in 1945. Figures for previous years are given in table 1.

TABLE 1.—*Average Straight-Time Hourly Earnings for Employees of Class I Steam Railways* [1]

Year	Average straight-time hourly earnings	Index (1939=100))
1939	$0.721	100.0
1940	.723	100.3
1941	.752	104.3
1942	.819	113.6
1943	.878	121.8
1944	.914	126.8
1945	.916	127.1
1946	[2] 1.101	152.7

[1] Source: Interstate Commerce Commission, Monthly Comments on Transportation Statistics, June 1946. These averages were derived by dividing the straight-time compensation paid for, by straight-time service hours paid for. Employees in the executives, officials, and staff assistants group were excluded from the calculation. All other employees paid on a daily basis were included and their daily earnings were converted to hourly earnings on the basis of an 8-hour day.
[2] Estimated.

Table 2 summarizes the three major increases in wages, including the "in lieu of" adjustments, during the 1941–46 period. It shows that the operating unions have received increases amounting to 37 cents per hour while the non-ops have received 37½ to 39½ cents.

TABLE 2.—*Major Hourly Wage Increases for Railroad Employees, 1941–46*

Effective date [1]	Hourly wage increase	
	Ops	Non-ops
	Cents	*Cents*
Sept. 1, 1941	[2]	9.0
Dec. 1, 1941	[3] 9.5	1.0
Feb. 1, 1943	----------	4.0–10.0
Apr. 1, 1943	4.0	----------
Dec. 27, 1943	5.0	[4] 5.0–1.0
Jan. 1, 1946	16.0	16.0
May 22, 1946	2.5	2.5
Total	37.0	37.5–39.5

[1] For dates of agreements, see text.
[2] Increase of 7½ percent.
[3] This replaced the 7½ percent increase in effect from Sept. 1 to Dec. 1, 1941.
[4] Increases ranged from 5 cents per hour for the lowest paid groups to 1 cent per hour for the highest.

In addition to these major wage increases, many minior adjustments were made during the 1941–46 period. Individual carriers or groups of carriers signed agreements for wage increases with one or more of the unions, but these did not substantially affect the general wage structure. The Wage and Hour Administrator issued an order, effective August 31, 1943, fixing a 40-cents-per-hour minimum in the railway industry. Actually there were few wage rates affected by this order since, with negligible exceptions, railway workers were already receiving a minimum of 46 cents per hour.

Postwar Increases In Basic Wage Rates [1]

BETWEEN VJ-day and the first of May 1946, when wage rates were being advanced quite widely throughout the American economy, the Bureau of Labor Statistics, in conjunction with its measurement of the trend of urban wage rates, began an analysis of general wage increases made in both manufacturing and nonmanufacturing industries.

Hourly wage rates advanced by at least 18½ cents—the pattern set in the steel case—in plants employing about one-fourth of all manufacturing workers. In some lines of manufacturing the increases were much smaller, and about one-fifth of all factory workers received no general increase during this period. Although the largest number of workers had their rates raised by 18½ cents, the average increase was about 14½ cents. When all workers are considered, including those not affected by general wage changes, the average gain amounted to about 11½ cents.

In the selected nonmanufacturing industries—trade, service, finance, and public utilities—establishment-wide increases were much less frequent with the exception of the heat, light, and power industry. Where granted, the average gain was 8.4 cents, but since many workers in the trade and service industries were employed in establishments that did not grant general increases, the average for these industries as a whole was a little under 3½ cents per hour.[2]

Manufacturing Industries

About 15 percent of all manufacturing workers were affected by general increases of less than 10 cents; a similar proportion received 10 to 15 cents; and some 22 percent received 15 to 18 cents. While the largest number of workers had their rates raised by 18½ cents, the median increase was 15 cents and the average, 14½ cents.

Differences in practice among industries were primarily responsible for the variation in the wage increases made after VJ-day, although significant variations existed within individual industries. Both interindustry and intraindustry differences are traceable to such factors as dissimilarities in original wage levels, peculiar geographical and labor market conditions, and differences in bargaining practices.

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[1] The estimates were prepared in the Bureau's Wage Trends Section by Frances M. Jones and Eleanor K. Buschman. They are based on reports from about 6,600 establishments which constitute the sample in the Bureau's Trend of Urban Wage Rates surveys.

Only general increases, or across-the-board increases granted at one time to 10 percent or more of the workers in an establishment, are included in the study. The definition of "general wage increase" is the same as that used in the Bureau's Index of Urban Wage Rates.

In making these estimates, wage increases expressed as a uniform percent of previous rates have been converted to cents-per-hour on an establishment average basis, and total establishment employment has been applied to these average increases in the frequency distribution. This procedure should not result in serious distortion of the distribution. Percentage increases comprise a relatively small proportion of the total number, and cover a range equally as wide as the range of cents-per-hour increases.

[2] Average wage rates in nonmanufacturing industries have advanced somewhat more than is indicated by establishment-wide rate revisions. This is due to the fact that many nonmanufacturing employers have "adjusted" earnings on an individual-worker basis instead of making uniform adjustments in the rates of all workers or of important occupational groups.

A distribution of workers by increases in basic wage rates in manufacturing industries is presented in the accompanying table. The information, shown separately for the several industry groups and for all industries combined, is estimated on the basis of the sample reports to the Bureau. Information for those establishments which granted some wage-rate increases is shown separately from that for establishments in which no wage revisions occurred. Although such estimates ordinarily would not justify as fine a classification as that presented here, the distribution is shown by 1-cent intervals in order to disclose the varying concentration points within industry groups. These concentration points generally represent the most typical increases for certain industries within an industry group. For example, in the textile classification the concentration at an increase of 6 cents is largely attributable to the hosiery industry; that at 8 cents to the cotton textile industry; the 10-cent increase is for various other textile industries including textile dyeing and finishing; the 15-cent increase represents largely the woolen and worsted industry.[3]

Nonmanufacturing Industries

The estimates of general wage increases for selected nonmanufacturing groups cover wholesale trade; retail trade; finance, insurance, and real estate offices; the heat, light, and power industry; and the service trades (hotels, laundries, etc.). The heat, light, and power industry in this group is exceptional in having made industry-wide increases. In contrast, almost half of the workers in wholesale trade and an even higher proportion in the other lines of service and trade were employed in establishments that have not made general revisions in wage scales. The typical increase in each of the nonmanufacturing industry groups was between 5 and 10 cents, except for the heat, light, and power industry in which the most frequent increase was 15 cents and the median increase was 14 cents.

[3] After the closing date of this survey additional large wage increases were widely given in some textile industries, notably cotton textiles and hosiery. Furthermore, in most industries there probably has been some further upward movement of wage rates as individual establishments have given first or additional increases to bring them in line with industry or area patterns.

Estimated Percentage Distribution of Workers in All Manufacturing and Selected Non-manufacturing Industries, by Amounts of General Wage-Rate Increases, August 18, 1945, to May 1, 1946

Hourly increase in earnings (in cents)	Manufacturing industries						
	Total manufacturing [1]	Food and kindred products	Tobacco manufactures	Textile-mill products	Apparel and allied products	Furniture and finished lumber products	Paper and allied products
Under 5	2.1	3.1	0.8	3.4	3.0	5.4	0.2
5 and under 6	5.5	10.5	15.4	2.2	3.0	24.1	5.1
6 and under 7	2.9	4.9	4.3	14.3	.6	4.9	
7 and under 8	2.2	5.4	26.8	3.6	2.3	5.5	1.6
8 and under 9	4.0	2.3	[2]	10.7	7.0	9.0	5.6
9 and under 10	2.6	2.0	.8	7.4	3.6	22.2	.3
10 and under 11	10.8	16.8	21.3	15.1	20.3	20.9	11.5
11 and under 12	1.7	1.2		4.7	1.0	.2	
12 and under 13	3.0	3.2	.7	2.9	6.6	1.3	.3
13 and under 14	2.3	.7	1.9	6.4	3.0		9.7
14 and under 15	2.3	.9	16.5	3.0	6.2	.9	6.0
15 and under 16	11.7	5.1	8.3	19.8	29.9	1.1	37.0
16 and under 17	4.6	29.0	.1	1.0	1.3		5.9
17 and under 18	3.3	2.7	.7	3.7	1.6		8.4
18 and under 18½	8.5	1.8	.1	.4	1.1		.5
18½ and under 19 [3]	21.6	3.6	.2	[2]	[2]	4.3	7.9
19 and under 20	1.2	.3	.1	.8	.4	.2	
20 and under 21	4.0	2.7		.1	2.1		
21 and under 22	.9	1.2			.1		
22 and under 23	.8	1.4			3.7		
23 and under 24	.2	.1	.5		.1		
24 and under 25	1.0		1.5	[2]	.6		
25 and over	2.8	1.1		.5	2.5	[2]	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Percent of all workers receiving no general wage increase	21.3	38.8	9.7	7.3	28.3	30.4	28.5

Hourly increase in earnings (in cents)	Manufacturing industries						
	Chemicals and allied products	Products of petroleum and coal	Rubber products	Leather and leather products	Basic iron and steel	Shipbuilding	Metal-working (except basic iron and steel and shipbuilding)
Under 5	1.8	3.5	2.3	0.2			1.9
5 and under 6	11.2		1.0	.4		0.7	4.9
6 and under 7	4.2			.3			.8
7 and under 8	2.3			3.1			1.1
8 and under 9	1.2		.1	30.9			1.2
9 and under 10	1.3		.1	3.5			1.6
10 and under 11	15.3		[2]	5.5	0.1		8.2
11 and under 12	.7	.1		1.5		[2]	1.9
12 and under 13	4.4	.1	2.6	9.5			2.6
13 and under 14	1.6		1.9	6.0		.2	1.4
14 and under 15	.7		.8	2.2			2.2
15 and under 16	15.7	.1	1.0	24.3			7.6
16 and under 17	6.5	1.1	.6	3.9			1.1
17 and under 18	8.3		1.1	1.5			3.9
18 and under 18½	6.5	28.3		2.6		90.8	13.1
18½ and under 19 [3]	5.1	.3	75.4		97.9		31.3
19 and under 20		1.1		.3		3.3	1.2
20 and under 21	11.4	10.6	2.3	3.0		4.9	6.3
21 and under 22	[2]	25.6	5.1	1.1			.7
22 and under 23		6.8		.2			.9
23 and under 24		12.2					.1
24 and under 25	[2]	.3					2.2
25 and over	1.8	9.9	5.7	.1	2.0	.1	3.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Percent of all workers receiving no general wage increase	17.7	1.5	2.9	12.5	1.9	17.0	18.4

See footnotes at end of table.

Estimated Percentage Distribution of Workers in All Manufacturing and Selected Nonmanufacturing Industries, by Amounts of General Wage-Rate Increases, August 18, 1945, to May 1, 1946—Continued

Hourly increase in earnings (in cents)	Selected nonmanufacturing industries					
	Selected nonmanufacturing	Wholesale trade	Retail trade	Finance, insurance, and real estate	Heat, light, and power	Services and trades
Under 5	13.1	7.8	14.4	10.7	2.6	24.8
5 and under 6	16.4	15.0	21.7	9.7	1.4	17.6
6 and under 7	10.5	11.3	10.4	2.8	.6	19.9
7 and under 8	10.4	16.3	9.4	13.4	2.1	6.8
8 and under 9	7.7	5.6	6.9	25.7	.4	4.9
9 and under 10	3.7	2.6	3.2	6.9	4.6	4.1
10 and under 11	17.1	22.2	19.6	9.9	12.9	10.6
11 and under 12	1.8	1.3	2.6	3.3	.4	.6
12 and under 13	3.5	1.4	2.6	6.0	8.8	4.1
13 and under 14	1.8	.6	1.8	2.8	6.5	.2
14 and under 15	3.1	2.5	2.0	1.3	15.0	1.7
15 and under 16	3.5	3.1	2.0	1.6	18.6	.8
16 and under 17	1.2	.5	.8	.1	9.2	.1
17 and under 18	1.9	4.0	.6	.1	5.5	1.4
18 and under 18½	.9	1.1	.1	3.7	2.4	[2]
18½ and under 19 [3]	1.0	1.2	.2	.1	4.9	.9
19 and under 20	.1		[2]	[2]	[2]	.2
20 and under 21	1.2	2.4	.3	.9	3.3	.5
21 and under 22	.1	.2	.2			.1
22 and under 23	.1		.1	.5	.3	[2]
23 and under 24	.1	.1	[2]		.1	.2
24 and under 25	[2]	.1	[2]			[2]
25 and over	.8	.7	1.1	.5	.4	.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Percent of all workers receiving no general wage increase	59.2	48.4	63.6	61.9	4.1	67.9

[1] Total includes the printing and publishing, lumber and stone, clay and glass products industries for which separate data are not presented.
[2] Less than one-tenth of 1 percent.
[3] With minor exceptions these are increases of 18½ cents.

Elapsed Time and Cost in Residential Construction[1]

ABOUT half the residential projects for which building permits have been issued since September 1945 are requiring more than 7 months from issuance of permit to completion. The average construction cost of dwelling units for which permits were issued during the last 4 months of 1945 was $6,857. By March 1946 this average had increased to $6,916. During March, 40 percent of the residential units were in the cost range of $6,001 to $9,000. In general, estimated construction costs were 25 percent higher than permit valuations. Practically all builders were having difficulty in obtaining building materials, but few reported any shortage of construction labor.

This report is based on a survey[2] made by the Bureau of Labor Statistics in 63 cities throughout the country of all permits issued in the last 4 months of 1945 and in March 1946 for the construction of new residential buildings and on resurveys conducted in May and July 1946.

In May 1946 the projects covered by the permits issued in September 1945 were resurveyed to determine whether or not they were actually being completed according to January estimates, or whether shortages of material were causing delays. Revised estimates of construction costs were also obtained to measure the effect of increased costs of labor and material.

At the request of the National Housing Agency, the Bureau conducted a survey during May 1946, to bring up to date the information secured in the study of permits issued in March 1946, and to discover specifically what effect, if any, such conditions as the continued bottleneck in materials and the current regulations relating to construction were having on total construction time. A resurvey of projects covered by March 1946 permits was also made during the middle of July, to determine the status of construction of projects which had been started.

Information was secured on approximately 8,800 dwelling units for which permits were issued during the last 4 months of 1945 and for about 9,000 such units authorized in March 1946. In some of the tables and text to follow, the data secured from the 63 cities have been raised statistically to present the general picture for all urban areas of the country.

Completion Time

LAG BETWEEN ISSUE OF PERMIT AND START OF WORK

During or before the month in which permits were issued, construction was begun[3] on approximately 55 percent of all dwelling units started or to be started in the September–December 1945 and the

[1] Prepared in the Bureau's Construction and Public Employment Division by Jack Tourin.

[2] Basic data on dwelling units were obtained from the local permit-issuing offices by a field staff working from the eight regional offices of the Bureau. Detailed information as to the time of starting and completing construction, estimated costs, and related material was secured from visits to construction sites and from interviews with contractors and owners. Data as to the time of beginning and completing a project were applied equally to all the component dwelling units therein, the first unit started and the last one finished serving as a basis for the entire job.

[3] Construction is considered to have begun when excavation has been started.

March 1946 sample (table 1). About 5 percent of the dwellings were started prior to the permit month. An additional 25 percent were begun in the first month succeeding the permit month, and 10 percent more in the second succeeding month. Almost 8 percent of the units were to be started later than the fourth month after permits were issued and the remaining 2 to 3 percent of estimated starts were distributed between the third and fourth months after the permit-issuing month.

This is in sharp contrast to findings of previous studies of permit lag made by the Bureau.[4] In 10 selected cities surveyed in 1929 and 1931, for example, work was started on well over 90 percent of all dwelling units within 1 month after permits were issued. In 1929 work was started on 45 percent of all residential buildings in the 10 cities within 1 day after the issuance of the permit, and in 1931, on 30 percent. Both in 1929 and 1931 well over four-fifths of the dwelling units were started within 10 days after issuance, and in both years the average period which elapsed between the issuance of a permit and the start of work was only about 6 days.

TABLE 1.—*Percentage Distribution of Dwelling Units Started (or Scheduled To Be Started), by Month of Start and Month of Permit Issuance* [1]

Month of permit issuance	Percent of dwelling units started in—					Percent of dwelling units remaining to be started
	Month permit was issued	Succeeding months				
		First	Second	Third	Fourth	
1945:						
September	[2] 48.3	29.2	12.8	3.4	1.2	5.1
October	61.6	19.9	8.5	2.2	.2	7.6
November	55.4	27.6	12.2	.3	[3]	4.5
December	58.2	26.9	2.4	.1	[4]	12.4
Average: September–December	56.5	25.5	8.7	1.4	.3	7.6
1946: March	[5] 54.4	24.0	10.4	3.2	[3]	8.0

[1] This table represents all dwelling units covered in the survey except those for which permits had lapsed or for which contractors indicated abandonment of intention to build.
[2] Includes 5.8 percent started prior to permit month.
[3] Less than a tenth of 1 percent.
[4] No dwelling units started or scheduled to be started.
[5] Includes 4.1 percent started prior to permit month.

TIME FROM ISSUANCE OF PERMIT TO COMPLETION

About 63 percent of the dwelling units covered by the September–December 1945 period were to be completed within 6 months after permits were issued, according to estimates made on the first visit (table 2). Nearly nine-tenths were to be completed within 7 months, and practically all within 8 months after the permit-issuing month. It should be mentioned that units for which no definite completion estimates were made by contractors were distributed between the 6- and 7-month groups, in which over half the units fell.

September 1945 data were segregated from data for the other 3 months covered. In addition, to increase the accuracy of the distri-

[4] Elapsed Time in Building Construction (studies made by the Bureau of Labor Statistics in 1929 and 1931); see Monthly Labor Review, January 1933 (p. 158).

bution, the units for which the completion period was unknown or indefinite were placed in a separate category. These doubtful units covered 17 percent of all dwelling units surveyed. Only 42 percent of the dwelling units for which permits were issued in September 1945 alone were estimated to be completed within 6 months, 57 percent within 7 months, and 68 percent within 8 months. At least 14 percent would require more than 8 months from permit-issuing month to completion, according to early estimates secured from contractors in January 1946.

In May 1946 a resurvey of the September 1945 data was made. This indicated that only about a fourth of the dwelling units had actually been completed in 6 months, as compared with the estimate made in January 1946 of over two-fifths; 43 percent were finished in 7 months, a little over half in 8 months, and two-thirds were to be finished within 9 months following permit issuance.[5]

TABLE 2.—*Percentage Distribution of Dwelling Units Completed (or To Be Completed) in a Specified Number of Months Following Issuance of Building Permit* [1]

Month of permit issuance	Unknown	Indefinite	Percent of dwelling units completed (or to be completed) within specified number of months following issuance of permit										Number of dwelling units surveyed
			2	3	4	5	6	7	8	9	10	11 or more	
1945													
September–December	(2)	(2)	(3)	8.4	9.5	18.4	26.4	26.2	8.1	2.1	0.8	0.1	6,806
Cumulative percentage					17.9	36.3	62.7	88.9	97.0	99.1	99.9	100.0	
September only	2.2	15.0	1.1	3.1	5.3	18.4	14.2	14.5	11.7	3.9	2.2	8.4	1,650
Cumulative percentage				4.2	9.5	27.9	42.1	56.6	68.3	72.2	74.4	82.8	
September resurvey	4.3	11.9	.8	2.4	5.4	4.5	11.8	17.6	10.4	14.1	6.4	10.4	1,631
Cumulative percentage				3.2	8.6	13.1	24.9	42.5	52.9	67.0	73.4	83.8	
1946													
March	.3	32.7	3.3	7.9	10.5	12.1	12.1	6.1	5.6	6.6	1.5	1.3	8,823
Cumulative percentage				11.2	21.7	33.8	45.9	52.0	57.6	64.2	65.7	67.0	

[1] The month in which the building permit was issued is not counted in these calculations.
[2] Units for which completion time was unknown or indefinite were distributed between 6- and 7-month groups.
[3] No dwelling units completed or to be completed.

It was estimated by builders that, of the dwelling units for which permits were issued in March 1946 in the 63 cities surveyed, almost half would be completed in 6 months. This percentage compares fairly closely to the 42 percent obtained in the original September 1945 survey but greatly exceeds the actual figure of 25 percent obtained in the resurvey of the September permits. Estimates, however, are not revealing beyond the 6-month period for the permit group of March 1946, as contractors were unable to make forecasts of completion time for practically a third of the entire number of dwelling units to be built. Uncertainty of supplies of materials was the principal reason given, in spite of possession of priorities. Labor shortages were only rarely mentioned as a factor.

[5] It should be noted that, since start and completion of units were measured on a project basis (see footnote 2), individual units may have been completed sooner than indicated. Units in a multi-unit project were considered completed only after the project as a whole was completed.

Preliminary results of the resurvey of the March permits indicate that there is still considerable uncertainty as to the length of time that will be required to complete the projects. Contractors were still unwilling to make any definite estimates of completion time for projects containing more than 17 percent of the dwelling units. Estimates were obtained from contractors indicating that about 46 percent of all units would be completed within 6 months following the issuance of permits, and that the remaining units would require more than 6 months to complete.

TIME FROM START OF CONSTRUCTION TO COMPLETION

Building contractors in the 63 cities surveyed estimated that more than a fifth of the homes for the September–December 1945 period (for which such information was given) would be completed within 3 months, three-fifths within 5 months, and well over four-fifths within 6 months of the time construction was started (table 3). Estimates for March 1946 permits indicated that a fourth of the dwelling units would be completed within 3 months, more than three-fifths within 5 months, and three-quarters within 6 months of being started.

By July 1946, contractors were being interviewed to determine whether current operating conditions were substantially affecting original estimates of the construction period. Efforts were also being made to reduce the area of uncertainty caused by the lack of building-time estimates.[6] Additional data obtained will probably result in a substantial revision of original March 1946 completion figures, especially those beyond the 5-month period.

TABLE 3.—*Percentage Distribution of Dwelling Units Completed (or To Be Completed) in Specified Number of Months Following Start of Construction* [1]

Month of permit issuance	Percent of dwelling units completed (or to be completed) in number of months specified					
	3 or less	4	5	6	7 or more	Total
1945:						
September	18.0	10.2	18.8	21.1	31.9	100.0
October	16.3	14.7	19.4	38.4	11.2	100.0
November	22.2	17.9	23.3	20.2	16.4	100.0
December	32.8	21.8	22.1	14.5	8.8	100.0
Average: September–December	22.0	16.2	20.9	24.5	16.4	100.0
September 1945—resurvey	8.0	11.2	14.9	17.7	48.2	100.0
1946: March	24.9	14.9	22.7	12.9	24.6	100.0

[1] Excludes dwelling units for which estimates of construction time could not be obtained.

Results of previous studies of elapsed time in building construction made by the Bureau may be compared with recent trends. Surveys of construction time for residential building in 10 cities showed that almost a third of the homes built in 1929 and about half in 1931 were completed within 3 months after work had started. Of the total number of dwellings, 78 percent in 1929 and 89 percent in 1931 were

[6] Preliminary results of this resurvey of March permits indicate that contractors were still unable to make estimates of completion for projects containing over 17 percent of the dwelling units.

finished within 6 months from the time work was begun. In 1931 an average of about 3½ months was required to complete the buildings surveyed; about 4½ months was required in 1929.

Permit Valuation and Estimated Construction Cost

DISTRIBUTION BY VALUATION AND COST CLASS

Valuations shown on building permits have been found to understate actual construction costs.[7] For this reason, contractors building the dwelling units covered in the late 1945 and March 1946 surveys were asked for their more considered estimates of construction costs for comparison with valuation data secured from the permit-issuing offices. Table 4 presents two sets of valuation groupings: Dwelling units distributed according to (1) permit valuations, and (2) contractors' later estimates of construction costs.

TABLE 4.—*Percentage Distribution of Dwelling Units by Permit Valuation and Estimated Construction Cost Class, September–December 1945 and March 1946*

Valuation or cost class	Distribution of dwelling units by—							
	Permit valuation				Estimated construction cost			
	September–December 1945		March 1946		September–December 1945		March 1946	
	Percent of total	Cumulative percent	Percent of total	Cumulative percent	Percent of total	Cumulative percent	Percent of total	Cumulative percent
$500 or less	0.9		0.4		0.4		0.2	
$501–$1,000	2.4	3.3	.8	1.2	1.5	1.9	.4	0.6
$1,001–$1,500	2.2	5.5	1.6	2.8	1.8	3.7	.5	1.1
$1,501–$2,000	2.4	7.9	1.1	3.9	1.5	5.2	2.0	3.1
$2,001–$2,500	7.1	15.0	9.0	12.9	1.6	6.8	1.5	4.6
$2,501–$3,000	6.8	21.8	3.3	16.2	4.4	11.2	3.1	7.7
$3,001–$3,500	4.7	26.5	4.2	20.4	3.1	14.3	3.8	11.5
$3,501–$4,000	7.0	33.5	11.2	31.6	3.2	17.5	3.0	14.5
$4,001–$4,500	6.6	40.1	4.6	36.2	5.7	23.2	7.2	21.7
$4,501–$5,000	11.5	51.6	9.0	45.2	5.7	28.9	4.3	26.0
$5,001–$6,000	16.9	68.5	11.2	56.4	15.8	44.7	12.9	38.9
$6,001–$7,000	13.3	81.8	17.8	74.2	16.7	61.4	13.2	52.1
$7,001–$8,000	10.5	92.3	8.6	82.8	13.9	75.3	13.2	65.3
$8,001–$9,000	2.9	95.2	8.7	91.5	10.7	86.0	13.2	78.5
$9,001–$10,000	2.6	97.8	3.6	95.1	6.5	92.5	6.6	85.1
$10,001 and over	2.2	100.0	4.9	100.0	7.5	100.0	14.9	100.0

During September–December 1945, nearly 7 in every 10 of the dwelling units were in permit-valuation classifications of $6,000 or less. In March 1946, not quite 6 in every 10 of the units were in this group, reflecting the recent upward trend in construction costs and differences in type of dwellings being built. In comparison, contractors' estimates of construction costs obtained in personal interviews placed 45 percent of the dwelling units covered in the September–December 1945 survey and only about 40 percent of the March 1946 total in cost groups of $6,000 or below.

In the earlier survey, 61 percent of the units were reported as having a construction cost of $7,000 or less, whereas in March 1946,

[7] These exclude costs of land, engineering and architectural fees, and other nonconstruction costs.

only 52 percent of the units were to cost not more than $7,000 (table 4). During September–December 1945, 31 percent of the units were to cost between $7,000 and $10,000 as compared with 33 percent in March 1946. However, nearly 15 percent of the units covered by March permits were to cost more than an estimated $10,000 as compared with 7.5 percent in September–December 1945.

The average permit valuation of dwelling units for which permits were issued during the September–December 1945 period in the 63 selected cities was $5,486 and the average estimated construction cost for these units was $6,857 (table 7). The resurvey of September 1945 permits disclosed that the average permit valuation of units authorized in September alone was $5,414, compared with an estimated construction cost of $7,230. In March 1946 the respective averages were $5,634 and $6,916. It may be observed from these figures that there was an increase of nearly 3 percent in the average permit valuation but only 1 percent in the average estimated construction cost from the September–December 1945 period to March 1946.

ESTIMATED CONSTRUCTION COST BY REGION

The estimated construction cost of dwelling units covered by March 1946 permits varied considerably between different sections of the country. In all urban areas, 52 percent of the dwelling units were estimated to cost not more than $7,000. In two regions, the percentage of units in this cost group was much higher than the national average (table 5). In the Northeast, 93 percent of the units were below the $7,000 cost class, and in the South and Southwest 73 percent were $7,000 or under. The percentage of units in the West costing $7,000 or less was the same as for all urban areas (52 percent), whereas the percentage for the North Central section (31 percent) was much lower than the average for all urban areas. In contrast, 32 percent of the units in the North Central section were to cost more than $9,000. In the West, 21 percent were to cost more than $9,000, which was the same as for all urban areas. In the Northeast, only 4 percent, and in the South and Southwest only 11 percent of the units were to cost more than $9,000.

TABLE 5.—*Percentage Distribution of Dwelling Units Started in All Urban Areas, by Region and Estimated Cost Class, March 1946*

Estimated cost class	Percent of dwelling units in—				
	All urban areas	Northeast	North Central	South and Southwest	West
$1,000 or less	0.6	(1)	0.1	2.7	0.1
$1,001–$2,500	4.0	0.7	.4	9.5	4.0
$2,501–$4,000	9.9	3.9	1.5	18.8	11.8
$4,001–$5,000	11.5	13.5	3.5	14.5	14.9
$5,001–$6,000	12.9	63.4	3.5	18.0	11.4
$6,001–$7,000	13.2	11.6	21.7	9.8	10.0
$7,001–$8,000	13.2	.9	23.2	9.6	9.9
$8,001–$9,000	13.2	1.6	14.6	6.2	16.7
$9,001–$10,000	6.6	1.0	17.4	3.5	2.0
$10,001 and over	14.9	3.4	14.1	7.4	19.2
Total	100.0	100.0	100.0	100.0	100.0

[1] No dwelling units in this cost class.

ESTIMATED CONSTRUCTION COST BY SIZE OF CITY

Generally speaking, there was close correlation between city-size and cost classification for the dwelling units covered by March 1946 permits. In the smallest cities surveyed (2,500 to 25,000 population), 84 percent of the dwelling units were estimated to cost $7,000 or less; in the group of cities 25,000 to 100,000 population, 61 percent; and in cities of 100,000 population and over, 54 percent of the units were to cost not over $7,000 (table 6). In the smaller cities, 35 percent of the units were in groups to cost $4,000 or less; in the 25,000 to 100,000 population group only 26 percent, and in the cities of 100,000 and over, only 13 percent. In contrast, only 3 percent of the units in cities of from 2,500 to 25,000 population were to cost more than $10,000, as compared with 13 percent in the middle group of cities and 14 percent in cities with population of 100,000 or more.

TABLE 6.—*Percentage Distribution of Dwelling Units Started in All Urban Areas, by City Size and Estimated Cost Class, March 1946*

Estimated cost class	All urban areas	Cities having a population in 1940 of—		
		100,000 and over	25,000 to 99,999	2,500 to 24,999
$1,000 or less	0.6	0.4	2.4	2.0
$1,001–$2,500	4.0	3.2	11.8	8.2
$2,501–$4,000	9.9	9.0	11.4	24.3
$4,001–$5,000	11.5	12.4	10.0	10.0
$5,001–$6,000	12.9	15.8	12.6	28.9
$6,001–$7,000	13.2	13.4	12.5	10.2
$7,001–$8,000	13.2	12.5	12.5	8.2
$8,001–$9,000	13.2	13.0	8.6	4.1
$9,001–$10,000	6.6	6.1	5.2	1.5
$10,001 and over	14.9	14.2	13.0	2.6
Total	100.0	100.0	100.0	100.0

RATIO OF ESTIMATED CONSTRUCTION COST TO PERMIT VALUATION

The extent of the understatement in permit valuations as indicated by the September–December 1945 and the March 1946 building-permit surveys, was about a fourth of the permit valuation of all dwelling units to be built. Expressed in terms of ratio, the average estimated construction cost of dwelling units for which permits were issued in September–December 1945 was 1.25 of their permit valuation, compared with 1.23 for March 1946 units. In May, when the March 1946 permits were surveyed, contractors were queried again regarding the construction cost of the units covered by September 1945 permits (table 7). The result was a rise to 1.34 in the ratio of cost to valuation of these units. This increase may be attributed largely to tightening of the material-supply markets in the spring of 1946, resulting in higher costs than contractors originally estimated.

Understatement of permit valuation was greater in the lower than in the higher dwelling-cost groups. In permit value classifications of $4,500 and less, the ratio of estimated cost to permit valuation generally exceeded the ratio for total dwelling units, although in the categories above $4,500 the ratios were ordinarily lower than the average.

TABLE 7.—*Average Permit Valuation and Construction Cost of Dwelling Units in All Urban Areas, by Region, September–December 1945 and March 1946*

Region	Average permit valuation per unit		Average construction cost per unit		Ratio of construction cost to permit valuation		
	September–December 1945	March 1946	September–December 1945	March 1946	September–December 1945	March 1946	September 1945 resurvey (May 1946)
All urban areas	$5,486	$5,634	$6,857	$6,916	1.25	1.23	1.34
Northeast	5,826	4,859	6,835	6,191	1.17	1.27	1.42
North Central	6,530	6,385	7,767	8,017	1.19	1.26	1.35
South and Southwest	4,186	4,518	5,540	5,664	1.32	1.25	1.34
West	5,269	5,717	6,412	6,841	1.22	1.20	1.32

Regional ratios.—Generally, higher-than-average or lower-than-average ratios occurred within certain geographic areas during all periods covered. For example, in the South and Southwest States the ratio of estimated construction cost to permit valuation was above or equal to the average for the September–December 1945 survey, the September resurvey, and the March 1946 survey (table 7). In contrast, the ratios in the West were below average in all these periods. The resurvey of September 1945 building permits indicated increases in the ratio over the September–December 1945 average in all regions.

The ratios of estimated construction cost to permit valuation were related to the construction status of units recorded in permit offices in March 1946. It was found, generally, that the higher ratios shown meant that the actual or estimated cost was much greater than the valuation recorded on the permit, for the months in which building had already started or would shortly start. In such cases, contractors' estimates of construction cost were likely to be more realistic in terms of current market conditions, than were their estimates for units to be started later.

Construction Progress

To provide the National Housing Agency with some measure of progress of its housing construction program the survey of March 1946 residential building permits was supplemented with a questionnaire on the construction status of dwelling units actually started. To obtain more realistic information, these data were secured for individual dwelling units rather than on a project basis. They were obtained in the middle of May 1946, approximately 6 weeks after the last March permit had been issued.

On the basis of data for 63 cities, it has been tentatively estimated that, in the middle of May 1946, 82 percent of all urban dwelling units for which permits had been issued in March 1946 were under construction, 16 percent were not started but were scheduled to be begun, and 2 percent were abandoned (table 8). By the middle of July 1946, when the March data were resurveyed, 90 percent of all urban units recorded in March were estimated to be under construction, 6 percent were to be started, and lapses had increased to 4 percent of the total.

In the middle of May 1946, 3 percent of the dwelling units actually started under permits issued in March were estimated to be fully

completed. At that time a fourth of the units were completed to the roof, another 30 percent were in the first- or second-floor joist stage, 33 percent had foundations completed, and 9.0 percent were started but the foundations were not finished.

TABLE 8.—*Construction Status in May and July 1946 of Residential Construction for Which Building Permits Were Issued in March 1946*

Status of construction	Percent of dwelling units	
	Middle of May 1946	Middle of July 1946
Number of dwelling units for which permits were issued:		
Started	82.2	89.5
Not started, but to be started	16.1	6.1
Abandoned	1.7	4.4
Total	100.0	100.0
Status of construction of dwelling units actually started:		
Started, foundations not completed	9.0	6.8
Foundations completed	33.1	11.2
First-floor joists in	17.3	12.1
Second-floor joists in	12.4	11.7
Roof completed	25.1	25.1
Complete except for certain items [1]	(2)	25.4
Fully completed	3.1	7.7
Occupied	(3)	[4] 7.1
Total	100.0	100.0

[1] Incomplete for items such as hardwood flooring, electrical fixtures, heating plant, etc.
[2] Data not collected for this category in original survey.
[3] Included above under "fully completed" and/or "complete except for certain items."
[4] Refers to fully completed dwelling units above, occupied at time of survey.

When the resurvey of March 1946 data was made in the middle of July 1946, considerable progress was evident. Of nearly 8 percent of the dwelling units completed at that time, practically all were occupied. Another 25 percent were complete except for certain items, such as hardwood flooring, electrical fixtures, heating plants, and other finishing materials or equipment. Roofs were completed on 25 percent more of the units, and 24 percent were in the first- or second-floor joist phase. The remaining 18 percent were at the foundation stage or just beyond.

CONTRACTORS' OPINIONS ABOUT SHORTAGES

Contractors building almost 8,700 dwelling units throughout the United States were questioned in May 1946 about current and anticipated material and labor shortages. The contractors discussed shortages of materials and priority matters almost exclusively; comparatively little remark was made concerning existing or potential labor shortages. In some individual places contractors were experiencing difficulty in hiring such skilled workers as bricklayers and carpenters, but this was the exception. However, builders recognized that the apparent abundance of labor was directly related to the current shortage of materials available for operations, resulting in a thin spread of workers over a relatively large number of projects for which some materials were on hand. It appeared to be the consensus that when large quantities of material became available shortages of skilled labor might occur, if many more apprentices are not trained in anticipation of a greatly expanded building program.

Labor Requirements in Cement Production[1]

ONE of the basic materials used in any construction program is portland cement. On this account, and because the industry was in a most favorable position to resume peacetime operations, the Bureau of Labor Statistics has selected the cement industry for its first in a series of studies of labor requirements for construction materials.

This study derives special significance from the fact that a large volume of construction of all types has been anticipated for 1946. Construction needs for cement during the year were estimated at approximately 131 million barrels. The annual capacity of the industry is estimated at 220 million barrels, which could be increased to 280 million by adding to the number of work shifts.[2] It is noteworthy that no apprehension regarding availability of cement as needed has been expressed in public or private analyses of the building material shortages.

About 80 operations are necessary for the production of portland cement of a quality which meets modern specifications.[3] The initial step is the quarrying of the raw materials; and, as a second step, the raw materials are ground to a fine powder for the dry process of manufacture, or are reduced to a slurry by mixture with water when the wet process is used. Properly proportioned mixtures of the materials are fed into kilns and fused into a product called "clinker." After the addition of a small quantity of gypsum, the clinker is reduced to a fine powder known as portland cement.

Man-Hour Requirements in Manufacturing and Mill Operations

The 52 plants surveyed in the study, forming the basis for this article, represent an aggregate annual rate of production of 47,543,037 barrels of cement, requiring a total of 23,020,523 man-hours of labor.

Table 1 shows total man-hours, for each of the major departments of the plants, and the man-hours required to produce 100 barrels of cement in 1945–46. Comparative data on man-hours per 100 barrels are also given for 1934.[4]

In general, fewer man-hours were required to produce 100 barrels of cement in 1945–46 than 12 years earlier. There were wide deviations from the average in some plants. The basic factors affecting labor requirements—such as rate of production, size of plant, age of plant, number and size of kilns, and degree of mechanization—in 1945–46 remain the same as pertained to the study made in 1934. Certain functions necessary for operation of the cement plant are performed by plant employees in some cases and thus appear as man-hour re-

[1] Prepared in the Bureau's Division of Construction and Public Employment by Alfred W. Collier, assisted by Clyde Stone, under the direction of Brunswick A. Bagdon.
This report is the first of a series revising the studies on man-hour requirements in the production of building materials which were made from 1933 to 1939, in accordance with changed conditions, and extending coverage to materials not previously included. A detailed analysis of labor requirements in cement production will appear in a forthcoming bulletin.

[2] U. S. Department of Commerce, Construction and Construction Materials, May 1946 (p. 37). Estimates are based on maximum attainable production, with allowance for maintenance, repairs, and unavoidable shut-downs.

[3] Monthly Business Review, Federal Reserve District No. 4 (Cleveland), Vol. 28, No. 6 (p. 2).

[4] For 1934 study see Monthly Labor Review, March 1936 (pp. 564–577): Labor Requirements in Cement Production, by Bernard H. Topkis.

quirements, but in other instances appear only as cost items (for example, purchased electric power, purchased quarry materials, and contracts for shipping).

TABLE 1.—*Man-Hour Requirements in Cement Manufacture, 1934 and 1945–46*

Major departments of plants	Total man-hours (in thousands)	Man-hours per 100 barrels	
	1945–46	1945–46	1934
All departments	23,021	48.4	55.0
Quarrying	2,689	5.7	7.7
Processing	8,733	18.4	18.0
Shipping	2,581	5.4	6.3
Maintenance	2,629	5.5	[1] 6.0
Mill overhead	3,442	7.2	[1] 9.6
Administration	2,947	6.2	7.4

[1] Adjusted for transfer of yard operation from maintenance to mill overhead.

QUARRYING OPERATIONS

The materials obtained from the quarry are usually located on or adjacent to the plant site and man-hours necessary for delivery of these materials to the plant are included in the requirements shown for this department. Estimates of man-hours required for production and transportation of raw materials other than those obtained from the quarry are presented in a following section.

A substantial reduction in quarrying operations of 2.0 man-hours per 100 barrels of finished cement was effected between 1934 and 1945–46. In the 52 reporting plants, total man-hours in the 1945–46 period were 2,688,858, and the average per 100 barrels was 5.7 man-hours. The range in individual plants was from 1.2 to 19.7 man-hours per 100 barrels.

One reason for the reduction in man-hours in the past 11 years, as well as for the variation in man-hour requirements in this study, was the improvement in quarrying machinery. More general use of electric and Diesel-powered shovels with increased capacity and greater mobility was largely responsible. Steam shovels, which require an extra man for firing in addition to the operator are gradually being discontinued. In some plants the use of Diesel trucks has resulted in greater efficiency and flexibility in the quarrying operation.

PROCESSING DEPARTMENT

In 1945–46, 52 plants accounted for 8,732,921 hours of employment in the processing department. To process 100 barrels of cement required an average of 18.4 man-hours for all plants, an increase of 0.4 man-hours since 1934.

The data presented reflect only a slight change in man-hour requirements since 1934. This tends to understate the actual change in productivity, because specifications became more exacting in the intervening period. Technical improvements have kept pace with changes in specifications which required improvement in quality of the finished product, thus holding down the man-hour requirements

per unit produced near the level shown for 1934. Considering the more exacting specifications, the fact that the data show little change in man-hour requirements in the two periods studied is indicative of a marked improvement in productivity for the processing department.

Labor turn-over and labor shortages were felt by all plants in this department until late in 1945. The effects of the war in drawing off trained men created acute labor shortages, which resulted in the use of inexperienced labor in semiskilled and skilled jobs and tended to limit reductions in man-hour requirements which might normally have occurred in processing operations. The trend is now being reversed as discharged servicemen return to their former employers and as activities in war industries terminate.

The processing department is divided into five operational functions or sections. The average number of man-hours expended per 100 barrels in 1945–46, by processing functions, as compared with the earlier study in 1934, were as follows:

	Man-hours per 100 barrels	
	1945–46	*1934*
All sections	18.4	18.0
Raw department	5.5	5.2
Clinker department	5.2	4.6
Finishing department	3.1	3.1
Coal mills	1.3	1.5
Power department	3.3	3.6

The raw department man-hour requirement per 100 barrels in 1945–46 was 5.5. This exceeded the requirement in 1934 by 0.3 man-hour. In the clinker department, where the raw materials are burned in the kiln, man-hours increased 0.6; and in the finishing department, where the clinker is finally pulverized, gypsum is added, and the finished product is produced, no change occurred in the man-hour requirement.

For each 100 barrels of output, 1.3 hours were expended in the coal mills, where coal is treated and prepared for firing of the kilns. This average is based on the production of all plants, without regard to type of fuel used. Variations are considerable among the cement plants, depending upon the type of fuel used. In plants where gas or oil is the primary fuel, there are no requirements for fuel preparation.

A break-down was prepared showing man-hours required for those plants which used coal exclusively as compared with those which used natural gas, fuel oil, or combinations thereof with coal. Plants which used coal exclusively required 2.0 man-hours of employment per 100 barrels, while those which used, in addition to coal, fuels which did not have to be treated (for example, oil and natural gas), had 1.1 man-hours per 100 barrels.

In the power department, 3.3 man-hours were needed for each 100 barrels of output. The average decrease since 1934 in this department was 0.3 man-hour. Data for this department can be separated into plants which generate their own power and plants which purchase power from a utility. The latter plants, in which the functions of the power department are limited to distributing the purchased energy, require relatively fewer man-hours.

Analysis of 43 reporting plants showed that 12 plants generated all the power they consumed. To produce 100 barrels of cement,

these 12 plants required an average of 7.4 man-hours in the power department. Twenty-five plants purchased their power supply from local utilities and, accordingly, only 2.1 man-hours were required in their power departments. In addition to these two groups of plants, there were six which generated part of their power requirements. In most cases the amount of purchased power was considerably less than that generated and the man-hour requirement was 6.0 per 100 barrels of cement produced.

SHIPPING DEPARTMENT

The shipping department has two main functions: (1) Packing and loading and (2) bag handling and repairs. Upon completion of the manufacturing process, cement is stored in bulk in bins and silos and held for shipment. Depending upon instructions from the customer, shipments may be made in bulk, or in paper or cloth bags. Information gained in the field indicates that the trend among most cement plants is to increase shipments in bulk and in paper bags and to decrease shipments in cloth bags, eliminating not only some administrative expense involved in the accounting procedure for cloth-bag refunds and returns but also the cost of sorting, cleaning, and repairing returned bags.

In a special study of a portion of the sample, the shipments of 31 plants were analyzed. The total shipped by these plants during the period studied was 24,080,787 barrels. Of this total, 27.6 percent was shipped in bulk, 50.1 percent in paper bags, and only 22.3 percent in cloth bags. The above figure of 24,080,787 barrels represents 48.0 percent of the total shipments from the 52 plants.

In terms of man-hours of employment per 100 barrels of cement, 5.4 hours were required in the shipping operation during 1945–46. This is a decrease of 0.9 from the 6.3 man-hours reported in the 1934 study. Bag handling and repair accounted for 0.8 man-hour per 100 barrels, and packing and loading for 4.6 man-hours. Total man-hours in the shipping department for the 52 plants studied were 2,581,387. The range between plants was from 0.6 to 15.9 man-hours.

MAINTENANCE AND OVERHEAD

Maintenance.—In general, maintenance work includes the labor of the shop and repair gangs which overhaul the machinery during periods of shut-down. In 1945–46 yard employment data have been transferred to the mill overhead department. The man-hours required for maintenance operations are as follows:

	Man-hours per 100 barrels	
	1945–46	*1934*
Total maintenance	5.5	6.0
Shop	2.0	2.4
Repair gang	3.5	3.6

Man-hour requirements per 100 barrels for this department decreased 0.5 since 1934. This can be attributed largely to labor shortages and curtailment of maintenance operations during the war years, as well as through 1945. Information collected in the field indicates

that plans for extensive maintenance operations on the part of many cement manufacturers will increase the man-hour requirements for this department in the immediate future.

Mill overhead.—Data showing the average number of man-hours charged to overhead, as compared with the 1934 survey, are given below:

	Man-hours per 100 barrels	
	1945–46	*1934*
Total mill overhead	7. 2	9. 6
Mill office	1. 4	1. 5
Storeroom	. 5	. 6
Laboratory	1. 5	2. 1
Superintendents and foremen	1. 2	1. 5
Watchmen	. 6	. 8
Yard	1. 6	2. 5
Miscellaneous labor	. 4	. 6

The labor shortage during the period studied was, as in the maintenance department, a large contributing factor in the decrease as compared with 1934. Greater reductions in employment can be expected in overhead operations than in production operations when labor shortages develop. Should an adequate labor supply lead to increased employment in this department, average requirements per unit produced may remain stabilized near the level here shown for 1945–46, if anticipated increases in the production of cement materialize.

ADMINISTRATIVE DEPARTMENT

This department includes the employment necessary to operate the general offices and selling organizations. Because many plants kept inadequate man-hour records for these employees, a special study of 23 plants was made. Upon this basis, it was estimated that the average number of man-hours required per 100 barrels of production was 6.2, and that 2,946,633 hours of employment were required for the administrative functions in the 52 sample plants.

Variations in Labor Requirements

BY RATE OF OPERATION AND PLANT CAPACITY

In determining the man-hours necessary to produce 100 barrels of cement, the rate of operation and the plant capacity must be taken into account. From table 2, it is apparent that as percent of capacity utilized approaches the maximum, the total man-hours required in all departments are generally lower. From table 3, it appears that the larger producers tend to show greater efficiency in manufacturing operations.

The greatest variation in man-hours exists in the manufacturing process. In plants operating at more than 80 percent of capacity, as shown in table 2, only 16.6 man-hours per 100 barrels of production were required in manufacturing, whereas those operating at less than 40 percent of capacity required 38.5 man-hours. The average requirement for all plants was 31.1 man-hours.

TABLE 2.—*Average Number of Man-Hours Required to Produce 100 Barrels of Cement in 1945–46, by Rate of Operation*

Percent of capacity utilized	Number of plants	Man-hours per 100 barrels			
		Total [1]	Quarrying	Manufacturing [1]	Shipping
All plants	52	42.2	5.7	31.1	5.4
Less than 40 percent	12	49.6	5.4	38.5	5.7
40 to 60 percent	24	50.3	6.8	37.2	6.3
60 to 80 percent	9	38.9	4.9	29.0	5.0
80 to 100 percent	7	25.4	4.6	16.6	4.2

[1] Does not include administrative labor.

Table 3 furnishes a break-down of the 52 plants of the sample according to capacity in 1945–46. Again, a wide range occurs in the manufacturing departments, with the largest producers reporting 24.7 man-hours per 100 barrels and the smallest 39.9.

TABLE 3.—*Average Number of Man-Hours Required to Produce 100 Barrels of Cement in 1945–46, by Annual Plant Capacity*

Capacity	Number of plants	Man-hours per 100 barrels			
		Total [1]	Quarrying	Manufacturing [1]	Shipping
All plants	52	42.2	5.7	31.1	5.4
Over 2,500,000 barrels	8	33.1	4.1	24.7	4.3
2,000,000 to 2,500,000 barrels	5	37.4	5.5	26.7	5.2
1,500,000 to 2,000,000 barrels	10	44.9	5.5	33.9	5.5
1,000,000 to 1,500,000 barrels	17	51.0	6.6	37.1	7.3
Under 1,000,000 barrels	12	54.2	9.3	39.9	5.0

[1] Does not include administrative labor.

BY GEOGRAPHIC AREAS

The variations in labor requirements among geographic areas, for the 52 plants studied, are shown in table 4. Plants in the Pacific States lead in productivity, with the plants in the Southeast next in order. On the basis of productivity, the relative position of plants in the Pacific States remains unchanged since 1934. Plants in the Mountain States show the highest man-hour requirements, 60.2 man-hours per 100 barrels. Plants in the Lehigh Valley area are nearest the average of all plants included in the survey with 41.1 man-hours per 100 barrels. Among the factors which affect the range of man-hour requirements by geographic areas are production rate, size of plant, age of plant and equipment, process of manufacture, and type of fuel used.

TABLE 4.—*Average Number of Man-Hours Required to Produce 100 Barrels of Cement in 1945–46, by Geographic Area*

Area	Number of plants	Annual production	Man-hours per 100 barrels			
			Total [1]	Quarrying	Manufacturing [1]	Shipping
		Barrels				
All areas	52	47,543,000	42.2	5.7	31.1	5.4
Pacific	6	9,012,000	24.6	4.8	16.0	3.8
Southeast	5	5,955,000	38.7	5.7	27.0	6.0
Lehigh Valley	4	5,485,000	41.1	5.3	29.8	6.0
Middle West	15	14,334,000	45.8	5.9	34.5	5.4
Northeast	6	3,887,000	47.4	4.9	37.0	5.5
Southwest	11	6,649,000	53.8	6.5	40.9	6.4
Mountain	5	2,221,000	60.2	7.5	46.1	6.6

[1] Does not include administrative labor.

Total Man-Hour Requirements for Production and Transportation

The preceding sections have developed in detail, from basic plant records, the man-hours required at the plant to manufacture 100 barrels of cement. The following section estimates the additional man-hours required to extract those raw materials not hitherto considered, to haul these materials to the plant, and to transport the finished cement to the construction site.

These operations (production of additional raw materials, and transportation), as indicated below, require an estimated 52.1 man-hours in addition to the 48.4 required at the plant. Thus, 100 barrels of cement delivered to a job site represent an over-all investment of approximately 100.5 man-hours of labor.

	Man-hours per 100 barrels	
	1945–46	*1934*
Total production and transportation	100.5	126.4
Raw materials, production	[1] 13.0	[1] 14.1
Raw materials, transportation	10.6	6.6
Quarrying, manufacturing, shipping and administration	48.4	55.0
Transportation, finished cement	28.5	50.7

[1] Includes purchased electric power.

PRODUCTION OF RAW MATERIALS

The materials used in cement manufacture are in the main (1) limestone, shale, clay, and other materials obtained from the plant's quarry, (2) gypsum, and (3) coal. Usually the first of these materials is obtained from a quarry located on or adjacent to a plant site, and this operation is covered in the man-hours required for the manufacturing process.

Required quantities (to produce 100 barrels of cement) of the materials not considered under manufacturing and mill operations, including power, are shown in the statement following.

	Requirements per 100 barrels, 1945–46	
	Amount of materials	*Man-hours to produce quantities consumed*
Materials: [1] Total	-----	13.0
Gypsum	0.66 ton	.5
Coal	6.29 tons	8.3
Power (purchased)	1,355 kw.-hr.	4.2

[1] Steel, for which requirements were indicated in the 1934 study, is not represented here because its use in the finish grinding and cloth-bag tying operations has substantially decreased.

The amount of each material required in the manufacture of 100 barrels of cement has been calculated from Bureau of Mines tabulations of materials consumption in all cement plants in the country in 1945. The man-hours required to produce a unit quantity of each material were obtained by relating production and man-hours data available in the Bureau of Mines, the Federal Power Commission, and the Bureau of Labor Statistics.

Information was not available for estimating the employment created through the purchase by cement mills of materials used in small quantities, such as sacks, lubricants, explosives, and repair parts. Inasmuch as quantities of these materials were very small in relation to total production of cement, lack of these man-hour estimates is believed to have a negligible effect on the total estimate of labor requirements.

TRANSPORTATION OF RAW MATERIALS

In addition to the labor involved in extracting the raw materials, a substantial number of man-hours are required to transport them from their source to the cement plant. No direct measurement of these man-hours was attempted in this survey. Data published in a previous study[5] by the Bureau, however, afford a basis for computing rough estimates of the man-hour requirements for the transportation of the coal and gypsum consumed in the production of 100 barrels of cement. Total man-hours required for transportation of these materials was 10.6 man-hours; for transporting coal, 9.6 man-hours were required, and for transporting gypsum, 1.0 man-hours.

TRANSPORTATION OF FINISHED CEMENT

The total man-hours needed to transport 100 barrels of finished cement from the plant to the point of use are estimated to be 28.5. To haul 100 barrels of finished cement by rail from the plant to the railhead requires 16.2 man-hours, and by truck from the railhead to the construction site 12.3 man-hours.

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[5] Labor Requirements in Rail Transportation of Construction Materials, by John A. Ball, in Monthly Labor Review, October 1937 (pp. 846–853).

The estimated requirements for the rail haul were computed from the transportation study referred to in the analysis of materials transportation. Data for the labor expended in unloading 100 barrels of cement from the freight car and trucking them to the construction site were developed in the earlier study of total requirements for cement production. Since no current figures are available for the revision of this estimate, it has been incorporated unchanged in the current survey.

Trend of Productivity, 1930 to 1945

According to data prepared by the U. S. Bureau of Mines, output per man-hour of quarrying and manufacturing labor in the cement industry increased from 1.79 barrels in 1930 to 2.59 barrels in 1942,[6] the year in which the highest rate of productivity has been achieved. The rather steady trend toward greater productivity was interrupted during the depression of the thirties and again during the war years.

Construction of new plants and modernization of many old ones appear to be largely responsible for the increase in output per man-hour during the first 8 years of the series shown below. Changes in productivity in recent years, however, tend to vary directly with the rate of capacity utilization. In 1942, when the highest rate of capacity utilization was reached, the number of barrels produced per man-hour was 2.59, whereas in 1944, when capacity utilization dropped sharply, the number of barrels produced was 1.99. In 1945, however, with increased production and plant utilization, output per man-hour again increased, reaching 2.10 barrels per man-hour.

The average number of barrels of cement produced per man-hour and the number of man-hours required in the production of 100 barrels for each year, 1930 to 1945, are shown below:

	Average number of—			*Average number of—*	
	Barrels produced per man-hour [1]	*Man-hours required to produce 100 barrels* [1]		*Barrels produced per man-hour* [1]	*Man-hours required to produce 100 barrels* [1]
1930	1.79	56.0	1938	2.21	45.3
1931	2.07	48.2	1939	2.38	42.0
1932	2.00	50.1	1940	2.40	41.7
1933	2.01	49.7	1941	2.57	38.9
1934	2.06	48.6	1942	2.59	38.5
1935	1.96	51.1	1943	2.25	44.4
1936	2.19	45.6	1944	1.99	50.3
1937	2.12	47.1	1945 [2]	2.10	47.6

[1] Data are from Bureau of Mines, U. S. Department of the Interior. Includes quarrying labor and all manufacturing labor except administrative.
[2] Preliminary.

[6] Except for materials quarried by cement plants, these data do not include the labor required in the production and transportation of raw materials, administrative labor in cement plants, or the labor required in transportation of the finished product to the construction site.

Foreign Labor Conditions

Labor Conditions in Iran[1]

IRAN'S population of 15 million is engaged mainly in agriculture and kindred pursuits. Unionism, strikes, and labor legislation concern only a small proportion of the people of Iran, for not more than 300,000 at most are employed in industrial occupations—chiefly oil drilling and refining, transportation, carpet weaving, and a limited number of other manufactures.

Agriculture

Agricultural workers receive a daily wage of between 5 and 7 rials.[2] Payment is often made in kind, according to an ancient custom which divides the produce of the land into 5 parts, to be allotted respectively to the owner and to the suppliers of water, draft animals, seed, and labor. The peasant who provides only labor may receive as little as one-fifth, while four-fifths may go to the landlord.

During the period of wartime inflation, however, peasants probably obtained more food than town workers and did not live or work under conditions as crowded and insanitary as those in the cities.

Industrial Workers

Wages of town workers have varied widely from place to place, even within the same city or plant, for the same type of work. The cost of living (as measured by the official index) at one time rose to a peak of 1100 (1936–37=100), and in April 1946 stood at 816, while wages lagged far behind. An unskilled industrial worker receives perhaps 20 to 30 rials a day, compared to 6 rials a day in 1936.

No detailed information is available as to relative living costs in Iran and in the United States. It has been unofficially estimated that an Iranian worker with a daily wage equaling $1.10 could purchase goods and services to a value of only 27.5 cents in United States currency. However, in addition to money wages, some workers during the war received allotments of sugar, tea, bread, and clothing. Rice and wheat were bought by the Government and sold to industrial workers at the September 1941 price. At the end of 1944, cost-of-living allowances based on number of dependents were substituted for the Government allotments.

Wage rates paid by British and American armed forces to Iranian workers were 20 percent or more above native wage scales, and in some

[1] Data are from information furnished by William J. Handley, labor attaché stationed in Cairo, Egypt, and other officers of the United States Foreign Service.

[2] The average exchange rate of the rial is approximately 3 cents.

instances were supplemented by clothing and on-the-job feeding. In the case of the British Army, wages were adjusted in accordance with cost-of-living changes. No information is available concerning the practices of the Soviet Union in the employment of Iranian labor.

The wage paid to women and minors has been considerably lower than the wage of unskilled male labor. Women receive 60 to 65 percent, and children about 50 percent of that rate.

Piece rates have been prevalent in the textile and carpet-weaving factories, especially for women and children. Child labor is employed in the carpet factories and home workshops. Both worker and employer favor piece rather than time rates, although the unions contend that the piece rates are much too low and that raising them would result in greater output.

Wages have been somewhat higher and working conditions somewhat better in the north than in the south of Iran, with the possible exception of textile factories in Isfahan. The difference is attributed to the fact that many northern plants are Government-owned and union activity has been greater in the north.

Wages have been the chief cause of industrial disputes in recent years. Substantial increases were obtained in Isfahan, largely as a result of union activity, between 1943 and 1945. After a strike against the Anglo-Iranian Oil Co., the cash wage was nearly doubled in June 1946 (from 18 to 35 rials a day), but payments for lunch, sugar, and tea, and special prices for certain goods in the company's stores, were canceled.

A 10- or 13-hour day has not been uncommon in the carpet factories (carpets are one of Iran's principal exports.) Generally, overtime has been compensated at straight-time rates, but in the tobacco factory at Teheran a 15-percent premium has been paid for hours in excess of 48 a week. There has been little uniformity in the practice of payment for national holidays or for Friday, the traditional religious day of rest. Some workers have received a 2-weeks' paid annual vacation in place of the 15 holidays.

Unemployment

Almost 40,000 workers have been laid off since the end of the war (including 10,000 employees of the Iranian State Railroad). This has created a serious unemployment problem, which the Government, lacking an unemployment-compensation system and even placement offices, is not equipped to meet. The unions have demanded that workers be kept on the pay roll, regardless of the amount of work to be performed, and in some cases this has been done. Some Isfahan factories have agreed to adopt 2 shifts of 12 hours each, with half the usual rate to be paid after the eighth hour.

A declaration issued by the Minister of Commerce and Industries on April 3, 1946, warned owners of private factories against closing down because of a decrease from their wartime profits, threatening as a penalty suit and seizure by the Government, under the antihoarding law.

Development of Unions

The growth of unionism in Iran dates from 1941 when the Allied Powers entered the country. It has been fostered by the inflationary price rise, the improved bargaining position of labor resulting from increased industrial activity, and the change in government after the abdication of Shah Riza Pahlevi. Since the end of the war unemployment has been a major issue.

The majority of existing unions are affiliated with the Central Council of Federated Trade Unions, which was established in 1943 by the Tudeh Party. This party (and its successor, the Democratic Party of Azarbaijan) have been strong in the northern part of Iran.[3] In political affairs it is pro-Russian (many of its leaders having been trained in Russia), anti-British, and critical of the American missions on finance and on the Iranian State police. Its economic demands have stressed land reform, to enable the peasant to make installment purchases of parcels of the large estates; industrialization; workers' housing; full trade-union recognition; legality of the right to strike; higher wages; 8-hour day; regular pay for holidays when no work is done, with double time for overtime and holidays worked; and 1 month's leave with pay a year.

In the summer of 1945, a group of Soviet trade-unionists visited Iran. Shortly thereafter the Tudeh unions were invited to participate in the World Trade-Union Conference in Paris, in September 1945. A non-Tudeh trade-unionist was, however, appointed by the Government as worker delegate to the ILO Conference in Paris in October 1945. The credentials committee seated the delegate, but suggested that the Iranian Government had not exercised sufficient care in selecting the workers' delegate and his advisers in accordance with the ILO constitution.

Non-Tudeh unions in Iran are the Trade Union of Workers and Handicraftsman, about which little is known abroad, and the Central Council of Workers and Agricultural Workers, with headquarters in Isfahan. These groups are smaller and less influential than the Central Council of Federated Trade Unions. Membership claims by all organized labor groups appear to be exaggerated, as the total of the number claimed amounts to more than the estimated total number of industrial workers in Iran. Many of the members admittedly do not pay dues, and other satisfactory criteria of membership claims are lacking.

Numerous and violent strikes have occurred in Iran during the last 3 years. Leaders, it is reported, have often been arrested, and subsequently released through political pressure. The strikes have resulted in wage gains and retention on the pay roll of workers who otherwise would have been laid off, and have led to the recognition of unions by employers and by the Government.

The strikes against the Anglo-Iranian Oil Co. in the spring and summer of 1946 were sponsored by the Central Council of Federated Trade Unions and marked the extension of Tudeh influence into the

[3] Premier Qavam organized the National Democratic Party in June 1946, which adopted a considerable portion of the Tudeh program and seeks the cooperation of the Tudeh group. Three Tudeh members entered his cabinet.

southern part of the country. While there has been no formal recognition of unions by the company, it has dealt with representatives of the striking laborers and unions, either directly or through the Government. A British Parliamentary Committee of 3 members visited Iran in June 1946 to investigate the relations of the company with its employees.

In April 1946, Premier Qavam promised the Central Council of Federated Trade Unions (the Tudeh group) full recognition, including representation before the Supreme Economic Council on labor matters, general adoption of the 48-hour week, release of arrested leaders, and reinstatement of certain dismissed workers. The Supreme Economic Council was instructed to formulate a broad social and economic reform program to improve the condition of industrial workers and farmers. In May 1946, a decree of the Iranian Council of Ministers put into effect, pending submission to the next elected Parliament, a comprehensive labor law, which had been under discussion for more than a year in the old Parliament, and which in its present form embodies many of the demands of the Iranian unions.

Labor Legislation

Prior to the labor law of 1946, very little labor legislation had been passed in Iran. A workmen's compensation law in 1943 replaced a previous statute which provided for a relief fund financed only by worker contributions, with no worker control over expenditure.

Factory construction and sanitation was regulated by a law of 1936, but enforcement of the safety and hygiene provisions has been lax and intermittent, and with some exceptions, working conditions have been bad. To enforce proper standards in the carpet-manufacturing industry would be exceedingly difficult even if the Government had a force of capable, adequately trained labor inspectors, because much of the work is carried on in the home.

The 1946 decree law specifies duties and obligations of employers and employees. Employees were prohibited from forming factions or engaging in activities that would disturb the smooth operation of the factory and the progress of production. This was construed to make unions illegal.

The same decree of 1946 assures workers in the same factory or trade the right to form unions. These unions must register their articles of association. As a penalty for exceeding its rights or disturbing the public peace, a union may be required to elect new officers, or may be dissolved or suspended. Violence in connection with strikes is forbidden.

To aid in the settlement of disputes, factory councils are to be established, representing the workers, the employers, and the Department of Labor. Disputes involving a number of workers or a union, if not settled by the factory council, shall be referred to a 3-member arbitration board composed of a representative of each party and a third member selected by the other two. Failing an award within 20 days, the dispute is to be referred to a higher board, set up in the locality, the award of which is to be final and binding. Pending

action by these bodies, strikes and lock-outs are prohibited. Violation entails dismissal or the taking over of the plant by the Government. Agreements reached must be put into writing.

The law also establishes a Department General of Labor in the Ministry of Commerce and Industry (pending creation of a Ministry of Labor),[4] with power to make safety and health regulations and to fix minimum wage rates, which, it is specified, shall cover the living costs of a family. Hours of work are fixed at 48 a week, overtime to be paid at 35 percent above the regular rate, with regulation of the total amount of overtime to be permitted. The granting of a weekly paid day of rest (generally Friday) and a paid annual vacation is required. In addition, the workers are to be paid for 6 specified holidays.

The law regulates employment of women and children, sets a minimum age of 13 years (10 years for trainees), prohibits night work, provides for maternity leave and factory crèches, and sets up contributory funds for social security purposes. It also regulates the payment of wages, requiring equal pay to men and women for equal work, and, in certain cases, notice and compensation for dismissal.

[4] A Labor Office, with a staff of 20 inspectors, recently set up in the Ministry of Commerce and Industry has started to collect data on employment, wages, and working conditions.

Wage and Hour Statistics

Wage Structure of the Electric Light and Power Industry, July 1945[1]

OVER 16 billion kilowatt-hours of electricity were sold to the Nation's industries and homes in July 1945. To supply the bulk of that power, privately owned electric light and power systems employed nearly 200,000 workers, of whom about a third were engaged in office work. The hourly wages of these workers and other significant aspects of the industry's wage structure, discussed in the present article, are based on the first national survey of this industry made by the Bureau of Labor Statistics.

With the exception of small companies engaged in distributing purchased power, electric light and power companies operate one or more generating plants and distribute power to industrial and domestic consumers. While primarily engaged in producing and distributing electricity, electric light and power companies may also produce and sell gas or steam; operate transportation, telephone, or water systems; or engage in enterprises not necessarily of a public utility character, such as selling electrical appliances. The practice of providing allied or independent services is widespread; almost all the larger companies and 2 out of 5 companies with less than 250 employees participate in one or more of these subordinate activities.

Although the large utilities dominate the industry picture, the majority of the Nation's privately owned light and power companies employed fewer than 250 workers in July 1945; many distributors employed less than 8 workers. Excluding the latter, an estimated 430 systems were in existence in July 1945; half employed from 8 to 250 workers, and of the rest, 3 out of 4 had more than 500 workers, including those engaged in allied services. Conforming to the distribution of population and industry in the country as a whole, the electric light and power industry is widely dispersed, but half of the employment in the industry was found in the Middle Atlantic and Great Lakes regions.

The Labor Force

In July 1945, approximately 240,000 workers were employed in the multiple activities carried on by the 430 light and power systems. Of these, 196,000 could be termed electric light and power workers, engaged in generating, distribution, installation and servicing, plant maintenance, office work, and other functions connected with the

[1] Prepared by Joseph W. Bloch. This article summarizes and integrates the findings of two mimeographed reports recently issued by the Bureau's Wage Analysis Branch—Wage Structure: Electric Light and Power, 1945, which presents a detailed picture of the industry's wage and occupational structure, and Occupational Wage Relationships: Electric Light and Power, 1945, which measures and analyzes wage differentials among occupations. Field work for the survey was conducted under the direction of the Bureau's regional wage analysts.

production and sale of electricity. Except for office personnel, the labor force was predominantly male.

The three important functional divisions of a light and power system, with respect to its principal service, are plant maintenance, operating, and office personnel.[2] The operating division may be further subdivided into (1) the generating group, responsible for producing electricity and delivering it to the transmission lines at the power plant; (2) the transmission and distribution group, engaged primarily in constructing and maintaining the distribution equipment and lines that carry the current from station to station and to the ultimate consumer; and (3) the installation and servicing group, responsible for maintaining recording devices and bringing the power and attendant services into the home and factory.

In terms of employment, the relative significance of the important functional groups and occupations in the industry as a whole is indicated in table 1. Allied services, including a small proportion of semiprofessional and specialized workers whose skills may have been used in the production of electricity, accounted for approximately a fifth of the labor force in July 1945. The operating division engaged nearly two-fifths of the industry's workers, or close to half if allied service workers are excluded. Linemen of all grades constituted the largest occupational category in the production and distribution of light and power. The proportion of the industry's workers in plant maintenance (8.9 percent) was considerably greater than that found in many large-scale manufacturing industries.

TABLE 1.—*Percentage Distribution of Workers in Electric Light and Power Systems, by Occupational Group, July 1945*

Occupational group	Percent of all workers	Occupational group	Percent of all workers
Maintenance	8.9	Operating—Continued	
Electricians	1.7	Transmission and distribution—Con.	
Machinists	.3	Patrolmen	0.3
Maintenance men, general utility	.8	Substation operators	2.7
Mechanics, automotive	.7	Troublemen	1.6
Mechanics, other	1.0	Truck drivers	.6
Apprentices, learners and helpers	1.4	Truck driver-groundmen	1.1
Supervisory workers	.4	Apprentices, learners, and helpers	1.1
Other workers	2.6	Supervisory workers	1.1
		Other workers	2.5
Operating:			
Generating	12.1	Installation and servicing	7.9
Auxiliary-equipment operators	1.4	District representatives	.8
Boiler operators	2.0	Metermen	1.7
Coal and ash handlers [1]	.9	Meter installers	.3
Oilers	.3	Meter readers	2.2
Switchboard operators	2.0	Servicemen, appliance	1.2
Turbine operators	1.0	Apprentices, learners, and helpers	.3
Watch engineers	.8	Supervisory workers	.3
Apprentices, learners, and helpers	.7	Other workers	1.1
Supervisory workers	.4		
Other workers	2.6	Clerical workers, operating departments	1.4
		Custodial (guards, janitors, and watchmen)	2.5
Transmission and distribution	18.8	Allied and miscellaneous workers [2]	18.7
Cable splicers	.4	Office workers	29.7
Groundmen	1.6		
Linemen	5.3	Total	100.0
Load dispatchers	.5		

[1] Includes crane and other equipment operators, as well as manual workers.
[2] Includes a small proportion of semiprofessional and specialized workers engaged in activities connected with light and power but not allocable to any one major group.

[3] Clerical workers in operating departments, custodial workers, and miscellaneous workers not allocable to any one function make up the remainder of the electric light and power labor force

Because of the widespread distribution of services and the variety of clerical work necessary in other aspects of this industry, the office force is an important segment of the labor picture. About 3 out of every 10 workers in the industry were engaged in office duties, and of these 2 were women. The number of women employed in nonoffice jobs was negligible—less than 2 percent of the labor force. Outside of the clerical jobs, women were most frequently employed as janitresses.

Unionization.—An estimated two-thirds of the privately owned light and power systems operated under the terms of union agreements covering at least half of the nonoffice personnel. Most of the larger systems were organized; hence, approximately 90 percent of the plant workers in the industry were either covered by a union agreement or worked for a union company. The International Brotherhood of Electrical Workers of America (AFL) maintained collective-bargaining agreements with a large majority of the unionized systems. The Utility Workers Organizing Committee (CIO) and various unaffiliated unions also represented workers in the industry.

Wage Structure [3]

Three important phases of the wage structure are discussed in this article: Hourly earnings of all nonoffice workers; average earnings of workers in key plant and office occupations; and average system wage scales, in terms of pay differentials among key occupations. Variations among the principal economic regions, as well as the picture for the industry as a whole, are analyzed. The basic data consist of straight-time average hourly wage rates, exclusive of premium pay for overtime and night work and nonincentive bonuses, such as Christmas bonuses.[4] Cost-of-living payments of a regular nature were included, as were group incentive bonuses received by a very small proportion of the industry's workers. Workers engaged in allied services and administrative, executive, and professional personnel were excluded from all tabulations.

THE INDUSTRY AS A WHOLE

Wage levels.—Except for office workers, the industry's labor force is almost entirely male. In nonoffice jobs men averaged $1.04 an hour in July 1945 (table 2). Although straight-time hourly earnings ranged from less than 45 cents to more than $2, the middle range, covering half the workers, was from 85 cents to $1.20. Less then 6 percent of the men earned below 65 cents an hour.

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[3] The Bureau's wage survey covered 130 systems and approximately 91,000 workers, excluding those engaged in allied services, or almost a third of the privately owned light and power systems with more than 8 employees and nearly half the workers connected with light and power operations. Since the electric transmission lines and services under the control of light and power companies usually extend beyond the municipality limits within which central power plants and offices are situated, the wide geographic coverage of this sample survey is evident. Wage data were obtained from July 1945 pay rolls and other plant records by field representatives of the Bureau. Workers were classified by occupation on the basis of uniform job descriptions prepared by the Bureau. These job descriptions are available upon request.

Employment figures shown throughout this study reflect employment in the industry as a whole rather than the sample studied.

[4] Hourly rates for salaried workers were computed by dividing the straight-time weekly or monthly rates by normal rather than actual hours.

TABLE 2.—*Percentage Distribution of Men Plant Workers in Electric Light and Power Systems, by Straight-Time Average Hourly Earnings [1] and Region, July 1945*

Average hourly earnings [1]	United States [2]	New England	Middle Atlantic	Southeast	Great Lakes	Middle West	Southwest	Mountain	Pacific
Under 45.0 cents	0.1	0.1	(3)	0.5	0.1	0.6	0.1	0.1	0.4
45.0–49.9 cents	.3	.1	(3)	1.7	.1	.1	2.4	.5	
50.0–54.9 cents	1.1	.4	0.1	4.7	.4	2.0	7.1	2.2	.1
55.0–59.9 cents	2.2	.4	2.7	7.0	.6	2.4	8.3	1.6	.2
60.0–64.9 cents	2.1	1.5	1.1	6.3	1.3	3.8	4.6	5.1	.2
65.0–69.9 cents	2.5	1.3	1.2	7.8	2.0	6.5	4.4	5.3	.8
70.0–74.9 cents	3.9	2.6	3.9	6.2	2.8	8.1	8.8	4.3	1.5
75.0–79.9 cents	4.7	4.6	4.7	5.8	4.3	6.5	4.6	9.9	1.4
80.0–84.9 cents	4.5	4.8	3.8	6.1	4.8	7.0	3.8	6.0	3.7
85.0–89.9 cents	6.8	5.6	5.0	8.4	8.0	13.5	6.0	7.8	5.8
90.0–94.9 cents	7.3	10.5	7.5	3.9	7.8	9.9	6.7	9.0	6.2
95.0–99.9 cents	7.8	7.4	9.6	6.5	7.8	8.7	5.0	6.1	7.0
100.0–104.9 cents	7.8	8.9	8.3	9.1	7.1	6.8	7.9	6.7	8.2
105.0–109.9 cents	8.0	9.9	6.5	10.6	9.8	4.3	6.9	10.6	6.7
110.0–114.9 cents	6.9	6.1	7.5	7.5	7.8	4.4	3.7	5.7	5.5
115.0–119.9 cents	8.2	10.2	12.0	2.8	7.1	3.8	7.2	2.9	9.2
120.0–124.9 cents	6.7	10.6	8.2	2.0	8.0	1.5	5.8	2.5	5.7
125.0–129.9 cents	5.8	2.1	7.2	.7	4.1	3.2	1.6	.8	20.2
130.0–134.9 cents	3.0	3.3	3.1	.2	3.3	1.5	2.5	1.1	5.2
135.0–139.9 cents	3.2	2.5	4.1	1.3	2.6	2.7	1.0	2.0	2.3
140.0–144.9 cents	1.8	1.8	.8	.2	2.2	1.7	.5	3.9	5.9
145.0–149.9 cents	1.2	1.4	1.4	.4	1.6	.2	.4	3.8	.6
150.0–159.9 cents	1.9	1.9	.8	.3	3.7	.3	.6	1.7	2.2
160.0–169.9 cents	1.4	.4	.3	(3)	1.6	.2	.1	.2	.7
170.0–179.9 cents	.4	.6	.2		.5	.1		.1	.3
180.0–189.9 cents	.2	.3			.3	.1		.1	(3)
190.0–199.9 cents	.1	.1		(3)	.1				
200.0 cents and over	.1	.6		(3)	.2	.1			(3)
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total number of workers	131,350	12,000	39,400	9,100	31,850	6,200	7,900	4,250	11,850
Average hourly earnings	$1.04	$1.06	$1.05	$0.87	$1.07	$0.92	$0.89	$0.96	$1.13

[1] Excluding premium pay for overtime and night work.
[2] Includes data for the Border region.
[3] Less than 0.05 of 1 percent.

The diversity in wage rates illustrated by the distribution in table 2 is influenced to a considerable extent by the high degree of occupational specialization required to operate a light and power system.

Occupational wage rates.—Differences in occupational earnings are brought out by table 3, which presents average hourly wage rates for key jobs. These selected plant and office occupations engage substantial numbers of workers and reflect the entire range of functions, skills, and earnings characteristic of the industry. Load dispatchers averaged $1.42 an hour; male janitors, in contrast, earned 73 cents, and women in the same occupation, 60 cents. Journeymen linemen, over 11,000 in number, averaged $1.19 an hour. Among office workers, earnings by occupation ranged from 56 and 57 cents averaged by office girls and office boys, respectively, to $1.15 for men hand bookkeepers.

Wage relationships.—Many electric light and power companies set occupational wage rates on the basis of systematic job-evaluation programs; others evaluate job requirements with less formal methods. In most cases, however, rates are determined for specific jobs, usually with a limited range of increases to allow for such individual factors as merit and seniority. An analysis of tendencies in occupational wage relationships is, therefore, of considerable value; the wage pattern indicated in the chart constitutes a background against which wage problems may be examined, specifically in connection with com-

paring differentials between occupations or skill levels, evaluating out-of-line rates, and placing new jobs into the wage scale. The relative positions of other occupations in the industry can be arrived at by comparison and interpolation, taking into account such factors as the general similarity in job content.

TABLE 3.—*Average Hourly Wage Rates (Straight-Time Hourly Earnings)* [1] *for Selected Occupations in Electric Light and Power Systems, July 1945*

Occupation, grade, and sex	Number of workers	Average hourly rate
PLANT WORKERS		
Men		
Auxiliary-equipment operators	3,289	$0.97
Boiler operators	4,631	1.09
District representatives	1,845	1.01
Electricians, maintenance	3,957	1.22
Groundmen	3,692	.79
Guards	1,161	.85
Janitors	3,053	.73
Linemen, journeymen	11,236	1.19
Load dispatchers	1,128	1.42
Machinists, maintenance	705	1.23
Maintenance men, general utility	1,954	1.08
Mechanics, automotive	1,661	1.09
Mechanics, maintenance	2,287	1.14
Metermen, class A	2,434	1.17
Metermen, class B	1,728	1.05
Meter readers	4,789	.87
Patrolmen	718	1.14
Servicemen, appliance	2,861	1.06
Stock clerks	1,762	.95
Substation operators	6,329	1.12
Switchboard operators, class A	2,981	1.11
Switchboard operators, class B	1,762	.98
Trouble men	3,722	1.21
Truck drivers	1,366	.95
Truck driver-groundmen	2,545	.93
Turbine operators	2,428	1.11
Watch engineers	1,841	1.32
Watchmen	566	.78
Women		
Janitors	783	.60
OFFICE WORKERS		
Men		
Bookkeepers, hand	387	$1.15
Cashiers	197	.92
Clerks, accounting	1,507	1.08
Clerks, general	208	.81
Clerks, pay-roll	201	1.05
Office boys	138	.57
Women		
Billing-machine operators	900	.71
Bookkeepers, hand	509	.84
Bookkeeping-machine operators:		
Class A	91	.84
Class B	293	.84
Class C	87	.68
Calculating-machine operators:		
Class A	128	.85
Class B	287	.69
Cashiers	2,422	.70
Clerks, accounting	2,668	.74
Clerks, file, class A	156	.79
Clerks, file, class B	357	.61
Clerks, general	2,714	.62
Clerks, order	316	.69
Clerks, pay-roll	750	.80
Clerk-typists	1,956	.65
Office girls	492	.56
Stenographers, class A	1,543	.85
Stenographers, class B	2,708	.72
Switchboard operators	1,339	.73
Switchboard operator-receptionists	187	.67
Typists, copy, class A	140	.77
Typists, copy, class B	548	.64

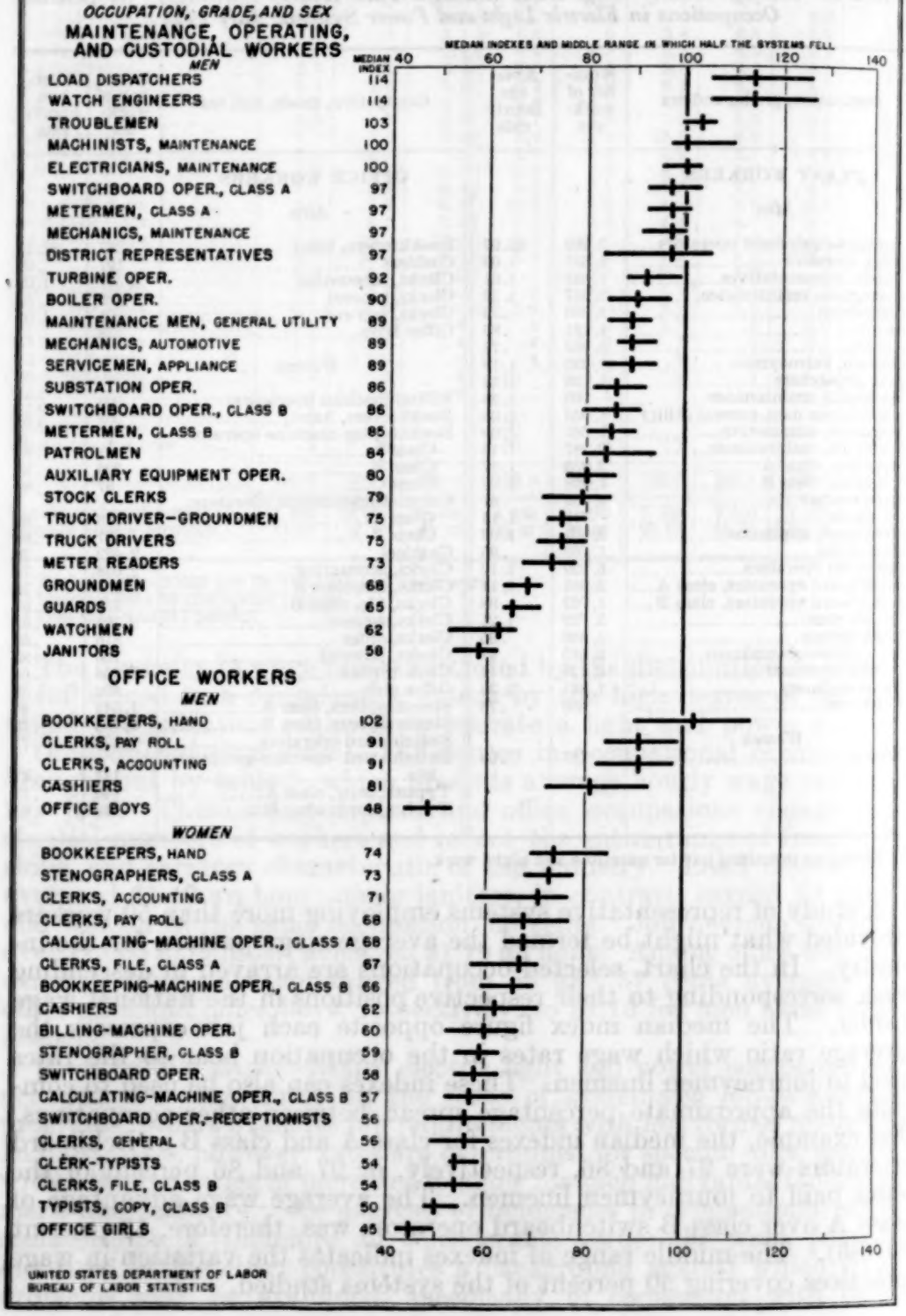
[1] Excluding premium pay for overtime and night work.

A study of representative systems employing more than 50 workers provided what might be termed the average wage pattern for the industry. In the chart, selected occupations are arrayed in descending rank corresponding to their respective positions in the national wage ladder. The median index figure opposite each job expresses the average ratio which wage rates in the occupation bear to the rates paid to journeymen linemen. These indexes can also be used to compute the approximate percentage spread between other occupations. For example, the median indexes for class A and class B switchboard operators were 97 and 86, respectively, or 97 and 86 percent of the rates paid to journeymen linemen. The average wage advantage of class A over class B switchboard operators was, therefore, 13 percent (97/86). The middle range of indexes indicates the variation in wage practices covering 50 percent of the systems studied.

INDEXES OF WAGE RATES FOR SELECTED OCCUPATIONS IN THE ELECTRIC LIGHT AND POWER INDUSTRY

JULY 1945

WAGE RATES FOR JOURNEYMEN LINEMEN = 100



UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

Among the maintenance, operating, and custodial occupations the highest positions in the wage scale were held by load dispatchers and watch engineers on an equal level, 14 percent above that of journeymen linemen. Lowest in the scale were janitors, earning 58 percent of the linemen's rate. Several concentrations of occupations at identical wage levels are evident in the industry-wide wage scale. For example, maintenance machinists, maintenance electricians, and journeymen linemen (the base occupation) tended to receive the same hourly rate. Trouble men, who are usually qualified journeymen linemen, ranked slightly higher in the wage scale than the base occupation.

Company wage policy governing office workers is usually distinct from that covering operating and maintenance workers. However, by relating office wage rates to linemen's rates, the relative positions of office workers in the typical system wage scale, as well as the wage differential between one office occupation and another, can be observed. As illustrated in the chart (p. 374), in terms of average hourly earnings, men hand bookkeepers held a position comparable to skilled trouble men, whereas pay-roll and accounting clerks were approximately on a level with turbine and boiler operators. Women office workers, including the higher skilled, occupied positions at the lower end of the wage ladder, below truck drivers. Men office workers held a substantial wage advantage over women in jobs of similar character, though possibly with lesser responsibilities.

The spread in the middle range was widest for load dispatchers, watch engineers, district representatives, men bookkeepers, and, on the whole, for office as against nonoffice occupations. On the average, the deviation covering half the light and power systems amounted to 7 percent (plus and minus) of the medians for maintenance, operating, and custodial occupations, and about 10 percent for office occupations. These percentages, although approximations, are useful in providing a uniform range for all occupations, particularly if the series of indexes is converted to a new base.[5]

REGIONAL VARIATIONS IN WAGE STRUCTURE

Wage levels.[6]—Average hourly earnings of men in plant or other operating jobs ranged from 87 cents in the Southeast to $1.13 in the Pacific region (table 2). In terms of over-all earnings, the differentials separating the Great Lakes, New England, and Middle Atlantic regions were slight, as were those between the Middle West and the Southwest and between the latter and the Southeast. Inasmuch as differences in the occupational distribution of workers influence the over-all averages, earnings in similar occupations present a more precise

[5] The index series may be converted to another base or to two or more bases, the choice of base depending upon the purpose for which the indexes are to be used. For example, relationships to the lowest-paid occupation, janitors, can be determined by using the median index 58 as a base (multiplying each index by 100/58). A separate series of indexes for office workers may be set up, with any occupation as base. The converted indexes, plus and minus 7 or 10 percent, as the case may be, will set an approximate range covering 50 percent of the systems. While not rigorously precise, this method of conversion is sufficiently reliable to serve most purposes.

[6] The regions are as follows:
New England.—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont. *Middle Atlantic.*—New Jersey, New York, and Pennsylvania. *Border States.*—Delaware, District of Columbia, Kentucky, Maryland, Virginia, and West Virginia. *Southeast.*—Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, and Tennessee. *Great Lakes.*—Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin. *Middle West.*—Iowa, Kansas, Missouri, Nebraska, North Dakota, and South Dakota. *Southwest.*—Arkansas, Louisiana, Oklahoma, and Texas. *Mountain.*—Arizona, Colorado, Idaho, Montana, New Mexico, Utah, and Wyoming. *Pacific.*—California, Nevada, Oregon, and Washington.

basis for comparison of regional wage levels.[7] In an examination of regional wage data, the high level of the Pacific region was again evident, particularly among the nonoffice occupations. While there appeared to be no clear-cut difference between the Great Lakes and Middle Atlantic regions with respect to nonoffice occupations, occupational averages were generally higher in these regions than in New England. For office jobs, Middle Atlantic rates were, on the whole, higher than those in the Great Lakes. Occupation by occupation, wage rates were generally higher in the Southwest than in the Middle West; the latter, in turn, held a wage advantage over the Southeast. Office earnings, however, were higher in the Southeast than in the Southwest and Middle West and compared favorably with those in New England.

Wage relationships.—To determine characteristic regional wage patterns, a broader geographic base was considered desirable in order to impart greater stability to the data. Thus, the New England and Middle Atlantic regions were combined into the Northeast area, the Southeast and Southwest into the South, and the Mountain and Pacific regions into the Far West. The Great Lakes and Middle West regions were not grouped. Data similar to those presented in the chart were computed for each region. Space limitations preclude presentation of these results in this article, but certain general observations should be of interest.[8]

Regional wage patterns may best be observed in comparison with the Nation-wide wage scale, since the latter serves as a "bench mark" against which variations may be evaluated. In the following analysis, therefore, each regional pattern is measured against the industry wage scale shown in the chart. As minor differences are inherent in the nature of the data, only the more significant variations are discussed here.

Wage relationships in Northeastern light and power systems conformed fairly closely to the national pattern. The spread between the lower level of wage rates (occupied by custodial workers and groundmen) and the intermediate level (consisting roughly of the occupations earning less than journeymen linemen) was somewhat narrower in the regional scale. On the other hand, the spread between the intermediate level and the higher-ranking occupations was slightly wider. Thus, in relation to the lowest and highest paid occupations, the intermediate occupations held lower positions in the regional than in the national wage scale.[9] Notable exceptions were truck drivers and truck driver-groundmen, who occupied markedly better positions in the region. Office occupations, except women accounting clerks, were on about the same level regionally and nationally.

With some exceptions, the wage pattern of Great Lakes light and power systems was almost identical with the Nation-wide pattern.

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[7] Regional wage rates are shown in the mimeographed report, Wage Structure: Electric Light and Power, 1945.

[8] Regional data and other information regarding wage relationships are presented in the mimeographed report, Occupational Wage Relationships: Electric Light and Power, 1945.

[9] Conversely, in relation to the intermediate occupations the others were on relatively better wage levels in the Northeast. The lack of fixed points makes for such dual interpretations. To give a simple illustration: If the spread between job A and job B is narrower in the regional scale than in the Nation-wide scale, it may be due to either job A being relatively higher or job B being relatively lower in the regional scale.

Watch engineers and the custodial jobs held significantly higher positions in the regional as against the national wage scale; class B switchboard operators and stock clerks were rated somewhat lower in the Great Lakes scale. On the whole, office wage rates compared less favorably with nonoffice rates in the regional picture.

Southern systems showed a pattern that differed significantly from the industry-wide wage scale. Although the ranking of jobs compared closely, the spread between occupational rates was considerably wider in the South than nationally. Typically, the lesser-skilled jobs occupied relatively lower positions; the higher-skilled held a comparative advantage. The principal exceptions were watch engineers and district representatives, who were rated lower in the South than nationally. Office occupations were significantly higher in the southern wage scale.

In the Middle West and Far West, the fewer companies and the preponderance of systems with less than 500 employees tended to weaken the reliability of the indexes for some occupations. Possibly for this reason the variations from the national wage scale formed less distinct patterns than were observed in other regions. The wage ladder in the Middle West exhibited less concentration of job rates than did the Nation-wide pattern; that is, wage differentials appeared between occupations shown on the same level in the chart. On the whole, however, the ranking of occupations and the spread between general wage levels in the Middle West did not differ materially from the industry pattern. Important exceptions included load dispatchers, trouble men, and general utility maintenance men, who were lower in the regional wage scale, and auxiliary equipment operators, who were rated considerably higher in the Midwest. Office workers held relatively better positions in this region than in the industry as a whole.

The picture for the Far West, as contrasted with the Nation-wide pattern, presented a closer grouping of wage rates among the higher-skilled occupations. On the other hand, a slightly wider spread was observed at the lower end of the wage ladder. While most office occupations were higher in the regional scale, women accounting clerks and switchboard operators were conspicuously lower.

VARIATION OF WAGE STRUCTURE WITH UNIONIZATION AND SIZE OF SYSTEM

Unionization.—A comparison between union and nonunion systems with respect to average hourly earnings of operating, maintenance, and custodial workers revealed that wage rates were about 11 percent higher in the more numerous and larger union systems. With the exception of the New England and Southwest regions,[10] where nonunion rates tended to equal or exceed the union rates, the wage advantage of the unionized systems was observed regionally as well as nationally. It was also found that systems employing less than 250 workers on the whole paid lower wages than the larger systems, the advantage of the latter amounting to approximately 20 percent.

[10] The proportion of workers in unionized systems was lower in these two regions than in other regions.

Size of system.—Differences in wage relationships as between small and large light and power systems were studied for two groups—those employing from 51 to 500 workers and those having more than 500 workers. The relationships among occupations represented in both size groups are shown in table 4 [11] (selected occupations are listed in same order as in the chart). The ranking of occupations in the two size groups shows a high degree of similarity. The widest difference in position was indicated for district representatives, who appeared considerably higher in the wage scale for the smaller systems. In the larger systems, the highest-paid operating or plant occupation was load dispatcher; in the smaller systems, watch engineer. In both groups janitors were at the bottom of the scale. The spread between the highest and lowest occupations was wider in the larger systems, an advantage of 109 percent as contrasted with 89 percent for smaller systems.

TABLE 4.—*Indexes of Wage Rates* [1] *for Selected Occupations in the Electric Light and Power Industry, by Size of System, July 1945*

[Wage rates for journeymen linemen=100]

Occupation, grade, and sex	Indexes for systems with—		Occupation, grade, and sex	Indexes for systems with—	
	501 or more workers	51 to 500 workers		501 or more workers	51 to 500 workers
MAINTENANCE, OPERATING, AND CUSTODIAL WORKERS			**OFFICE WORKERS**		
Men			*Men*		
Load dispatchers	121	102	Bookkeepers, hand	96	103
Watch engineers	117	108	Clerks, accounting	92	87
Trouble men	103	102			
Machinists, maintenance	100	100	*Women*		
Electricians, maintenance	102	99			
Switchboard operators, class A	100	95	Bookkeepers, hand	71	75
Metermen, class A	98	95	Stenographers, class A	74	68
Mechanics, maintenance	97	96	Clerks, accounting	75	64
District representatives	94	102	Clerks, pay-roll	70	67
Turbine operators	94	90	Cashiers	64	60
Boiler operators	91	89	Billing-machine operators	63	57
Maintenance men, general utility	90	89	Stenographers, class B	61	57
Mechanics, automotive	88	89	Switchboard operators	60	57
Servicemen, appliance	89	87	Switchboard operator-receptionists	59	55
Substation operators	86	86	Clerks, general	56	52
Switchboard operators, class B	86	85	Clerks-typists	54	54
Metermen, class B	87	83			
Auxiliary equipment operators	80	82			
Stock clerks	78	80			
Truck driver-groundmen	75	81			
Truck drivers	73	80			
Meter readers	73	71			
Groundmen	66	69			
Janitors	58	57			

[1] Excluding premium pay for overtime and night work.

The spread between the various clusters of wage or skill levels was somewhat greater in the larger systems. On the whole, office workers appeared higher in the wage scale for this group.

[11] Whether the variations in wage relationships discussed in this section are attributable solely to differences in size of system, as measured by employment, cannot be definitely determined. Other factors, such as unionization and location, may also influence wage relationships.

Apart from the general variations in wage patterns, there were significant differences in the relative wage levels of several occupations. Load dispatchers and watch engineers held substantially greater wage advantages over other occupations in the larger systems. On the other hand, district representatives,[12] truck drivers, and truck driver-groundmen occupied relatively better positions in the wage scale for smaller systems. In relation to other occupations, journeymen linemen were at a slight advantage in the smaller systems. Among office occupations, the wage position of women accounting clerks in the larger systems was notably more advantageous than that of similar workers in smaller companies. The reverse was true for men and women hand bookkeepers.

Wage and Related Practices

Work schedules and premium pay.—In July 1945, half of the systems studied had a scheduled workweek of 40 hours for maintenance, operating, and custodial personnel. About a third were on a 48-hour week. Round-the-clock operations were maintained by almost all the light and power systems; consequently about 10 percent of non-office labor force were required to work on each of the 2 extra shifts. Less than a fourth of the systems, however, paid premium rates for late shift work. The premiums were generally 5 cents or less an hour for second-shift work and from 5 to 10 cents an hour for third-shift work.

Bonuses.—In 1 out of 4 systems, bonuses not directly related to production (such as Christmas bonuses) were given to plant and office workers. These bonuses were not included in the wage data previously shown.

Lunch periods.—Information was obtained regarding paid lunch periods over 20 minutes in length. This practice was not common, only 5 percent of the systems reporting such provisions.

Vacations and sick leave.—A paid-vacation policy for plant and office workers was maintained throughout the industry. Plant workers received 1- or 2-week vacations in about equal proportions (by number of systems), whereas the majority of the systems favored 2-week vacations for office workers.

Formal provisions for paid sick leave for plant and office workers were in effect in 60 percent of the systems studied. In slightly less than half of these systems the sick leave period was 1 week; in the rest, 2 weeks or more were paid for.

Insurance plans.—Most of the electric light and power workers in plant and office could participate in life- or health-insurance plans paid for in whole or in part by the company. Retirement pensions were maintained by more than a third of the systems. Less than 15 percent of the systems studied had no insurance or pension plan in effect in July 1945.

[12] The most marked difference between the two size groups was observed for load dispatchers and district representatives. In the larger systems, the former occupation held a 29-percent advantage over the latter; in the smaller systems, the two occupations were at a par as a result of the comparatively lower wage level of load dispatchers and the higher wage level of district representatives.

Women in Industry

Equal Pay for Women Workers[1]

ENTRANCE of large numbers of women workers into war industries, during World War II, accelerated the movement for paying women "the rate for the job," regardless of sex. This practice was implemented by various branches of the Government directly responsible for employing large numbers of women in war production, and by the National War Labor Board. Many international unions have adopted equal pay as an official union policy. Before the war only two States had equal pay legislation on their statute books, but since then five others enacted such laws. Women in public employment and in teaching positions have been protected, in segments, by civil service status.

Public Service

Women in the United States are employed in considerable numbers in various branches of the public service, including teaching; they are found in the Federal Government, in the governments of the 48 States, and in the service of counties, municipalities, and other local units within each State. Current information on employment by sex is available for the Federal service, but it is difficult to obtain similar data for State and local governments, either in total or by categories.

The most recent data available for women employed in nonschool government units other than Federal are for July 1943. At that time women employees totaled 384,000, or 21 percent of the 1,861,000 persons employed by all such units. The greatest numbers and proportions of such women were employed by State governments—196,000, or 41 percent of total nonschool State employees. Counties had the next highest proportion of women employees, who constituted 28 percent of a total of 329,000. Cities, towns, villages, and townships employed 96,000 women out of a total of 1,051,000.[2]

The extent to which the job qualifications and remuneration are the same for both sexes in these non-Federal jurisdictions cannot be stated with accuracy.

FEDERAL SERVICE

As a general rule, women are eligible for both elective and appointive offices in the three branches of the Federal Government and may take

[1] This article reproduces material prepared by Margaret L. Plunkett, of the Women's Bureau, U. S. Department of Labor, in response to a British inquiry for information on the status of equal pay in public service in the United States.

[2] U. S. Department of Commerce, Bureau of the Census: State and Local Government Quarterly Employment Survey, Vol. 4, No. 20, Washington, 1944.

examinations for positions in Government service on the same conditions as men. Since the First World War, preferential treatment has been given to veterans of the armed forces of the country and also to widows of such men and wives of those disabled in the service. The total number of such women now employed in the Federal Government is not available, but the record shows that, in the 3 years 1943–45, about 6,000 such wives or widows of veterans of World War II, as well as an additional 5,000 wives or widows of veterans of other wars, were placed in the Federal service.

The latest comprehensive study of women employed in the executive branch of the Federal Government, made in 1938, showed an increase in both their number and proportion during the preceding decade. While most of the women were in the lower paid groups, increasing numbers have been appointed to professional positions in the Federal civil service, as well as nominated to positions of the highest rank in the diplomatic service (including Minister to Denmark and consul at Geneva).

The most recent figures available on the occupational distribution of women employees in the Federal Government are for December 1938.[3] Of 808,715 persons employed by the Federal Government at that time, 145,535, or 18 percent, were women. Of the total number of women employed in 1938, 4.2 percent were in the technical, scientific, and professional group of occupations, compared to 10.3 percent for men; 3.7 percent were in the managerial and administrative group (men, 4.7 percent); 55.8 percent were in the clerical group (men, 10.1 percent). Women made up 8.3 percent of the total number of employees of both sexes engaged in technical, scientific, and professional occupations, 14.8 percent of those in managerial and administrative occupations, and 54.8 percent of employment in clerical occupations.

More recent total employment figures, however, indicate the great increase, since the beginning of the war period, in the number and proportion of women serving the Federal Government in a civilian capacity. At the end of February 1946 full-time women employees numbered 718,720, or 33 percent of all such employees. At the peak of wartime Government employment of women, in July 1945, such employees numbered over a million, and constituted about 40 percent of all full-time employees in the Federal executive service.[4]

In the Federal civil service, salary scales are established according to grade without distinction of sex. This principle was established by the Classification Act of 1923, when a uniform salary was established for each specified grade and class of work in the departmental service, and no variation was made because of sex. Previously, considerable variation had existed between men and women in their opportunity to qualify for jobs and in entrance salaries for a given type of position. For more than 20 years, however, the Federal Government has recognized the validity of the principle of "rate for the job" irrespective of sex.

During World War II, this principle was further implemented by the various departments of the Federal Government directly re-

[3] U. S. Women's Bureau. Employment of Women in the Federal Government 1923–39 (Bull. No. 182), Washington, 1941.
[4] Information furnished by U. S. Civil Service Commission, Washington.

sponsible for employment of large numbers of workers in war production, including the Army and Navy Departments and the United States Maritime Commission.

With respect to the armed forces in World War II, the record is clear. Men and women who held the same rank within a given branch of the service received the same base rates of pay. They were also eligible for insurance on the same terms, and disability rates for injuries were also the same. One point of difference, however, related to dependency allowances during the period of service. Whereas a man automatically was entitled to family allowances for wife and children, and officers to family allowances for food and quarters when living with their immediate families, women were required to show actual dependency of husband and children before family allowances were made. Once certified, however, the same scale of family allowances was applicable to both sexes.

STATE SERVICE

By the middle of 1945, 22 of the 48 States had civil-service systems, established by law, which apply to all branches of the State government. In 6 of these States, such legislation was adopted in 1940 or later. In the remaining 26 States some departments, for example, unemployment compensation, employment service, and welfare divisions, operate under a merit system. Generally speaking, both in the States in which the public service is regulated completely by civil-service laws and in those in which civil service is only partially applied, regulations taking account of sex are rare. There are usually no obstacles to the appointment of unmarried women, although there may be at times to that of married women. Exceptions, of course, exist with regard to posts obviously best filled by men (for example, State police). In a few States, certain appointive officials and their deputies and personnel of specified classes are also restricted to men.

It is not possible to state with accuracy how many States observe the practice of paying men and women the same rates for the same jobs. In those States having regularly established civil-service systems, however, this practice is generally observed. Nevertheless, in many departments in State governments, men and women are employed in entirely different types of work, and therefore data on average or median salaries, by sex, would be of little pertinence in a discussion of equal pay.

COUNTIES AND MUNICIPALITIES

Merit systems of appointment are much less prevalent in counties, municipalities, and smaller units of local government than in State governments. The low proportion of local government units operating under such systems is indicated by the fact that in 1942, out of some 46,000 local jurisdictions (other than school districts), only 1,050 had some form of merit system. In this group the large cities observed the most advanced practice; in all, about 900 out of 16,000 cities operated under some type of civil service. Less than 200 out of 3,000 counties operated similarly.

Detailed information on cities of over 10,000 population indicated that 574 of the 913 cities for which such information was reported in 1945 had civil-service systems. The legal basis of these city

merit systems varied, some being required by the State constitution or State law and others by municipal charter or ordinance.

Data on pay scales and eligibility requirements for men and women in this large group of local government units are not available in summary form. It is safe to say, however, that in those jurisdictions having merit systems the probability of equal treatment of men and women is high. This is particularly true of the larger cities which have regularly established pay scales and make appointments from lists of eligibles who have passed examinations. In such cases, most types of jobs are covered, including those for professional as well as clerical and administrative workers. There are always, of course, some jobs, such as firemen, policemen, and mechanics of various sorts, that are almost uniformly limited to men, even in the larger units of government. For the smaller and nonregulated government units, no accurate information is available as to pay practices as between men and women.

Teaching

EMPLOYMENT, BY SEX

The distribution of men and women in the teaching profession on the chief school levels in 1939–40 and in 1941–42, the most recent date for which information is available, is shown in table 1.

TABLE 1.—*Number of Teachers in the United States, by Sex, and Level and Type of School, 1939–40 and 1941–42* [1]

School level and type	1939–40		1941–42	
	Men	Women	Men	Women
Teachers in all schools	301,131	803,152	293,719	799,367
Kindergarten and elementary schools:				
Public	67,140	508,060	59,567	499,261
Private	3,047	61,800	3,720	61,792
Secondary schools:				
Public	126,837	173,440	123,627	176,433
Private	11,547	18,583	11,960	19,719
Preparatory departments of colleges	1,968	1,753	1,727	1,745
Higher education:				
Normal schools and teachers colleges:				
Public	4,946	5,737	5,284	5,863
Private	365	657	347	579
Universities, colleges, and professional schools	80,936	24,176	83,278	25,157
Miscellaneous (schools for exceptional children, Alaskans, and Indians; and private business schools)	4,345	8,946	4,209	8,818

[1] Data are from Federal Security Agency, U. S. Office of Education. Biennial Survey of Education 1940–42 (vol. II, ch. II), Statistical Summary of Education, 1941–42, Washington, 1944 (p. 28).

These figures indicate a decline in the number of both men and women teachers in this 2-year period, but the impact of the war and compulsory military service undoubtedly had a material influence on the higher proportionate decline of men.

Over a period of 15 peacetime years, the proportion of men teachers in public schools (including kindergarten, elementary, and secondary schools) has been rising slowly. In 1919–20, 14.1 percent of public-school teachers in the continental United States were men; by 1930

they constituted 16.6 percent, 20.6 percent in 1935–36, and 22.2 percent in 1939–40. A slight drop in 1941–42 to 21.3 percent probably reflects the initial entry of men into the armed services and into essential war industries. There are, of course, great differences among the States in the percentage of men teachers. In the last prewar year for which data are available, 1939–40, these percentages ranged from 38.5 in Utah to 11.7 in Vermont.

The most recent comprehensive figures showing the proportion of men teachers in the individual States are for the school year 1941–42 (table 2). States which had equal-pay laws for teachers at that time were 11 in number, in addition to the District of Columbia.

TABLE 2.—*Proportion of Men Teachers in Public Elementary and Secondary Schools in the United States, by State, 1941–42* [1]

Men teachers in equal-pay States		Men teachers in non-equal-pay States			
State	Percent	State	Percent	State	Percent
California	20.0	Alabama	16.4	New Hampshire	21.0
District of Columbia	15.3	Arizona	25.4	New Mexico	21.6
Louisiana	18.3	Arkansas	23.5	North Carolina	14.9
Maryland	18.7	Colorado	25.2	North Dakota	21.5
Montana	23.9	Connecticut	16.1	Ohio	29.0
Nevada	23.9	Delaware	22.1	Oklahoma	25.9
New Jersey	20.2	Florida	14.4	Pennsylvania	25.8
New York	12.2	Georgia	14.6	Rhode Island	18.0
Oregon	18.9	Idaho	36.4	South Carolina	15.2
Texas	21.1	Illinois	22.8	South Dakota	19.1
Washington	27.3	Indiana	29.9	Tennessee	22.3
Wyoming	20.3	Iowa	13.8	Utah	38.8
		Kansas	19.5	Vermont	12.3
		Kentucky	23.8	Virginia	13.2
		Maine	18.1	West Virginia	29.2
		Massachusetts	19.4	Wisconsin	22.6
		Michigan	23.2		
		Minnesota	18.0		
		Mississippi	19.2		
		Missouri	21.0		
		Nebraska	14.2		

[1] Data are from Federal Security Agency, U. S. Office of Education. Biennial Surveys of Education in the United States, 1938–40 and 1940–42 (vol. II, ch. IV), Statistics of Higher Education 1939–40 and 1941–42, Washington, 1944 (p. 54).

The proportion of men teachers in the equal-pay States varies widely, and if these percentages are compared with those in other States, it is evident that the establishment of the equal-pay principle has not had a negative effect on the proportion of men teachers employed. On the contrary, between 1935 and 1941, 7 of the 11 equal-pay States for which information is available for both periods showed increases up to 4.6 percent in the proportion of men teachers. New York State, which showed the greatest decline in men teachers between 1935–36 and 1941–42, by 1944–45 had again increased its men teachers to a point exceeding its 1935–36 proportion by 1 percent, although in the intervening years large numbers of men had been drawn into the armed forces.[5]

REMUNERATION OF TEACHERS

Teachers' salaries in public schools vary widely according to the State or to the school district. A number of legal measures have been taken, however, regarding the principles which should govern the pay of teachers. As of the spring of 1946, legislation prohibiting salary

[5] For a full discussion of the equal-pay problem in relation to teachers, see National Education Association of the United States, Progress and Problems in Equal Pay for Equal Work, Washington, 1939 (p. 20).

discrimination on the basis of sex was on the statute books in 13 States. In addition, the teachers' salary schedule fixed by Congress for the District of Columbia is such as to assign equal salaries to men and women.

A number of large cities and other individual school districts have also fixed, if not inclusive salary schedules, at least scales of minimum rates which provide for equal salaries for both sexes. An inquiry made by the Research Division of the National Education Association of the United States showed that, in 1944–45, out of 92 cities of over 100,000 population, 79 maintained no differentials in salary scales for men and women teachers; 13 reported some differential. Of 271 cities with populations between 30,000 and 100,000, 155 reported no differential and 78 reported some form of differential, no recent information being available for 38 cities.

Statistics on average or median salaries for men and women do not necessarily indicate discrimination in pay, since such data are often influenced by differences in the job. Average salaries also reflect differences in occupational opportunities in addition to differences in work. Some types of higher-paying positions, for instance, are open only to men. For similar reasons it is impossible to draw any consistent conclusions, even for those States having teachers' equal-pay laws, regarding the effect of the equal-pay policy on the general level of teachers' salaries in these States as compared with the others. Employment of men teachers appears to be much more closely related to salary levels than to equal-pay requirements. In the larger city school systems, where salary scales are comparatively high, the proportion of men teachers is comparatively high. Generally speaking, as school districts get smaller and salaries lower, the proportion of men teachers declines.

The answer to the problem of getting larger numbers of men into the teaching profession would therefore appear to be to raise salary levels as a whole, rather than to establish or maintain sex differentials.

Industry and Commerce

FEDERAL LEGISLATION

In the United States the Congress has the power to pass and enforce legislation controlling what is referred to as interstate commerce. In other words, any firm or establishment whose operations extend beyond the borders of a single State or one that produces goods and services for such trade comes under Federal control. There are existing Federal laws which lay down standards of payment for men and women alike:

(1) The Fair Labor Standards Act of 1938 provides for the fixing of minimum wage rates irrespective of sex. Although the principle underlying this law is entirely different from that of "rate for the job," the law does establish, as a national policy, the equality of treatment of the sexes with respect to mandatory minimum rates of pay by private employers engaged in interstate commerce.

(2) Public Contracts (Walsh-Healey Act of 1936), covering conditions of employment in the production of supplies for Government contract, makes no distinction between men and women with regard to the establishment of a minimum-wage rate.

TABLE 3.—*Analysis of State Equal-Pay Laws as of July 1, 1946*

State, citation, and effective date	Provisions of laws as to—					
	Coverage	Exceptions	Prohibitions	Enforcement	Employer's civil liability	Penalties
Illinois (Revised Stats. 1943, ch. 48, secs. 4a, 4b). July 1, 1944.	Women in manufacturing (where 6 or more males and females are employed in the manufacture of any article). Applies to time and piece rates.	Law not applicable where differentials are provided by union contract.	Unequal wage to a female as compared with that being paid to males for equal work in the manufacture of the article. (Applies only to variations based on sex.)	None stated	No provision. [Employee must make claim within 6 months after wages due.]	Violation of act a misdemeanor, subject to a penalty of from $25 to $100.
Massachusetts (1945 Acts, ch. 584). Aug. 9, 1945.	Any person employed for hire by an employer in any lawful employment.	Employment in domestic service, agriculture, or in specified types of non-profit organizations (as educational, religious, etc.).	Sex discrimination in wage payments, or lower rates of pay to females than those paid to males for work of comparable character or on comparable operations.	Commissioner of labor gathers evidence; may take assignment of wage claims and sue to collect employee's claims, or employee may sue in own right.	Double the amount of unpaid wages due. Court costs and attorney's fees, if suit filed.	Maximum fine of $100 for sex discrimination in wages or for discrimination against employee who makes claim or assists in administering the act.
Michigan (1931 Public Acts, No. 328; reenactment of 1919 Public Acts, No. 239). Approved, June 16, 1931.	Women in manufacturing (where both males and females are or were engaged in the manufacture or production of any article). Applies to time and piece rates.	----------	Sex discrimination in wage payments, or lower rates of pay to females than those being paid to males on similar employment in the manufacture or production of articles of like value or workmanship or in any employment formerly performed by males.	None specified in the act. [Commissioner of labor is enforcing under general provisions of labor law.]	No specific provisions.	Violation of act a misdemeanor, subject to fine or imprisonment or both.
Montana (Revised Codes 1935, secs. 3090, 3091). Apr. 1, 1919.	Women in public or private employment.	----------	Lower rate of pay to a woman than that paid to a man for equivalent service or for the same amount or class of work in the same industry or place of employment.	No specific provisions.	No specific provisions.	Violation o act a misdemeanor. Fine of from $25 to $500 for each offense.
New York (1944 Laws, ch. 793). July 1, 1944.	Any person in private employment, with	Employment in domestic service, agriculture,	Discrimination against an employee in the rate of his	Commissioner of labor given au-	Employer incurs a $50 forfeit for each violation, under	No provisions.

New York (1944 Laws, ch. 793). July 1, 1944.	Any person in private employment, with limited exceptions.	Employment in domestic service, agriculture, or for specified types of non-profit organizations (as educational, religious, etc.).	Discrimination against an employee in the rate of his or her pay because of sex. Does not prohibit variation in pay based on "a factor or factors other than sex."	Commissioner of labor given authority to recover forfeits. Appropriation specified for administrative expenses.	Employer incurs a $50 forfeit for each violation under the act.	No provisions.
Rhode Island (1946 Laws; H. B. No. 592, Substitute A). Apr. 25, 1946.	Any person employed for hire by any employer in any lawful employment.	Employment in domestic service, or in specified types of nonprofit organizations.	Sex discrimination in payment of wages, or payment of lower salary or wage rates to females than to males for equal work or work on the same operations. Does not prohibit variations in rates of pay on specified differences other than sex, nor variation in rates between the sexes when established by a contract between the employer and the recognized bargaining agent of the employees.	Director of labor empowered to carry out the provisions of the act.	Double the amount of the unpaid wages due a claimant under the act, recoverable in court by the employee or by the director of labor acting on request of the employee and assignment of the wage claim.	Maximum fine of $200, or imprisonment of not more than 6 months, or both, for violation of the act, or for discrimination against an employee who makes complaint, or assists in administering the act.
Washington (1943 Laws, ch. 254, amending sec. 7638, Rev. Stats., Remington's). June 9, 1943.	Women in private employment (where both males and females are or were employed). Applies to compensation on time, piecework, or salary basis.	----------	Sex discrimination in wage payments, or payment of lower rates to females than those being paid to males similarly employed, or to females on work formerly performed by males. Does not prohibit variation in wages on a bona fide basis other than sex.	No specific provisions.	Full amount of compensation lawfully due the claimant.	None stated in the act.

[1] Act declared constitutional: *General Motors Corp.* v. *Read et al*, 294 Mich. 558: 293 N. W. 751 (1940).

STATE LAWS

Throughout the United States 7 States now have equal-pay laws. The New York law prohibits sex wage discrimination against either sex; laws in the other 6 States prohibit employers from maintaining wage differentials against women, based on sex. The Michigan (1919) and Illinois (1944) laws apply to manufacturing only. The Montana (1919) law applies to all public and private employment; the Washington (1943) law applies to all private employment; the New York (1944) and Massachusetts (1945) laws apply to all private employment other than domestic service, farm work, and employees of specified types of non-profit-making organizations; and the Rhode Island law (1946) applies to all private employment except domestic service and non-profit-making organizations (see table 3).

RECENT LEGISLATIVE PROPOSALS FOR EQUAL PAY

Federal.—An equal pay for equal work bill was introduced in 1944 in the Federal House of Representatives by the chairman of the Labor Committee, but was not passed. In June 1945 an equal-pay bill (S. 1178) was introduced in the Senate, and hearings were held on it by the Senate Committee on Education and Labor on October 29, 30, and 31, 1945. Considerable evidence was presented to the Committee showing the need for equal pay.[6] On June 21, 1946, the Committee reported favorably on the bill.[7] A companion bill (H. R. 5221) was introduced into the House of Representatives in January 1946, and was acted on favorably by the House Labor Committee on July 27, in the form of substitution of the Senate bill. The bill, however, was not debated in either house before Congress adjourned.

State.—Equal-pay bills were also introduced into the legislatures of 17 States during 1945 sessions, and in Massachusetts a bill was enacted. In 1946, equal-pay bills were pending before the Rhode Island and Kentucky Legislatures, and the Rhode Island bill became law on April 26. The smaller number of bills introduced in 1946 is accounted for not by any lessening of interest in equal pay, but by the fact that most State legislatures meet only in odd-numbered years. In 1945, 44 State legislatures were in session; in 1946, only 11 were in regular session, and 2 were in special session.

PROGRESS IN EQUAL PAY IN INDUSTRY

In the United States a general policy of women's remuneration has been evolved which has led gradually to a wider application of the principle of equal pay for equal work in industry and a narrowing of the gap between men's and women's wages. A great increase in the employment of women in the United States during the war, the substantial developments that have occurred in the volume and distribution of a women's labor force, and a wider range of skill acquired and occupations performed, have affected women's wage rates and earn-

[6] U. S. Congress, Senate, Committee on Education and Labor, Equal Pay for Equal Work for Women, Hearings on S. 1178 (79th Cong. 1st sess.), October 1945, Washington, 1946.

[7] U. S. Congress, Senate, Committee on Education and Labor, Women's Equal Pay Act of 1945 (79th Cong. 2d sess.), Report No. 1576 (June 21, 1946).

ings and have tended to strengthen and extend this development. The rapid increase in women's membership in trade-unions, accelerated by the war, has also contributed to the growing acceptance of the equal-pay principle. Many international unions have adopted equal pay as an official union policy, and it is becoming increasingly common to incorporate equal-pay clauses in local union agreements. Among the large unions which have adopted this policy are the United Automobile, Aircraft, and Agricultural Implement Workers of America, and the United Electrical, Radio, and Machine Workers of America.

The National War Labor Board.—As the Federal wartime agency authorized by Congress to control all wage adjustments in all occupations and industries during the war period, the National War Labor Board gave the greatest single impetus to the adoption of the equal-pay principle in industry generally. Early in the war, the Board issued its General Order No. 16, authorizing employers voluntarily to raise wages of women to those of men "for work of comparable quantity or quality on the same or similar operations," without applying to the Board for advance permission, as was necessary for wage increases generally. Many thousands of employers took advantage of this permission voluntarily to establish rates for their women workers equal to those of men on the same jobs.

Where employers refused to equalize wage rates of women voluntarily, unions had the right to take the issue of equal pay, as well as other issues in a "dispute case," to the National War Labor Board for decision. In such cases the Board followed the general practice of ordering the parties to incorporate an equal-pay clause in the union agreement and to apply the principle in connection with all job classifications and rates in the plant. Some of the most significant equal-pay cases from the standpoint of the number of women workers affected, in which the National War Labor Board ordered equal pay, involved the automobile industry and the electrical and radio-parts industries. No comprehensive statistical data exist on the total effect of the work of the War Labor Board on equal-pay practices in the United States, but it is reasonable to assume that employers will tend to continue practices already established where these have been shown to improve worker efficiency and contentment.

Industrial Injuries

Work Injuries in the United States During 1945[1]

MORE than 2 million work injuries occurred during 1945. This figure is about 9½ percent below that for 1944 and marks the lowest point since 1940.

The total actual time loss caused by disabling work injuries during 1945 is estimated at about 45,600,000 man-days, or the equivalent of full-time employment for about 152,000 workers for 1 year. This figure makes no allowance for the future economic losses occasioned by deaths and permanent impairments. If standard time charges are allowed for these types of work injuries, the total economic loss caused by work injuries during 1945 comes to 231,264,000 days, or the full-time annual employment of about 771,000 workers.

The number of work fatalities during 1945 remained essentially unchanged from the 1944 level. The estimate is 16,000. Another 1,800 workers were estimated to have been permanently and totally disabled for industrial employment. About 88,100 workers suffered lesser permanent impairments which will not disable them from continuing in industrial employment, but many of which may require retraining or changes in jobs. Fully 75 percent of these impairments involved a hand or fingers. Most of the work injuries, nearly 1,914,000, resulted in temporary total disabilities. The duration of such disabilities in manufacturing averaged 19 days.

Although the over-all number of work injuries in manufacturing decreased substantially from the 1944 level, the incidence of such injuries, as measured by the frequency rate, remained almost unchanged. Against an average of 18.4 disabling injuries per million employee-hours in 1944, the 1945 average was 18.6.

Nevertheless, in most manufacturing industries frequency rates were below the 1944 levels. Out of 118 industries for which comparable data were available, only 17 showed increases of more than 1 point in the frequency rate. In 70 others the trend was downward, and in the remainder the change was insignificant. Of 43 nonmanufacturing industries, 12 showed increases, 7 decreases, and 22 others indicated little change.

Industries outstanding for their high frequency rates were logging, stevedoring, sawmills, iron foundries, veneer and plywood mills, breweries, structural clay products, wooden containers, trucking and hauling, warehousing and storage, and highway and building construction.

[1] Prepared in the Bureau's Industrial Hazards Division by Max D. Kossoris. The detailed tables on which this discussion is based will be included in a forthcoming bulletin.

Estimates of Disabling Work Injuries

Continuing the downward trend from the peak wartime level of 1943, the total of 1945 injuries was lower than that for 1944. The reduction from the 1944 figure of 2,230,400 to the 1945 total of 2,019,800 amounts to about 9½ percent. The 1945 figure is lower than that for any year since 1940, but is still slightly above the total for that prewar year.

Much of the reduction during 1945 was due to the shift away from war work, a general shortening of the workweek, plant shut-downs for the purpose of reconversion or because of strikes, and a shift to a more normal type of work force. There is evidence, however, that many establishments are giving up entirely or are curtailing the safety work initiated during the war.

The estimated total of 16,000 fatalities resulting from work injuries is only 100 above that for 1944 (15,900). There is a similar difference in the number of permanent total disabilities, estimated at 1,800 in 1945. But both permanent partial and temporary total disabilities are down considerably from the corresponding 1944 levels. The 1945 total of 88,100 permanent partial disabilities is about 7 percent below 1944, and the number of 1,913,900 temporary total disabilities is about 10 percent lower.

Estimated Number of Disabling Injuries During 1945, by Industry Group

Difference between total number of injuries and injuries to employees represents injuries to self-employed workers]

Industry group	All disabilities		Fatalities		Permanent total disabilities		Permanent partial disabilities		Temporary total disabilities	
	Total	To employees	Total	To employees	Total	To employees	Total	To employees	Total	To employees
All groups	2,019,800	1,600,900	16,000	11,300	1,800	1,500	88,100	70,100	1,913,900	1,518,000
Agriculture [1]	305,600	71,600	4,500	1,100	400	100	15,300	3,500	285,400	66,900
Mining and quarrying [2]	82,100	77,600	1,500	1,400	200	200	3,600	3,400	76,800	72,600
Construction [3]	112,200	72,700	1,700	1,200	100	100	3,400	2,200	107,000	69,200
Manufacturing [4]	591,600	581,600	2,700	2,600	300	300	30,700	30,200	557,900	548,500
Public utilities	20,300	20,300	400	400	(5)	(5)	600	600	19,300	19,300
Trade [3]	296,000	236,800	800	600	100	100	7,100	5,700	288,000	230,400
Railroads [6]	94,100	94,100	1,100	1,100	400	400	6,500	6,500	86,100	86,100
Miscellaneous transportation [3]	139,900	120,100	1,000	800	100	100	4,200	3,600	134,600	115,600
Services, government, and miscellaneous industries [3]	378,000	326,100	2,300	2,100	200	200	16,700	14,400	358,800	309,400

[1] Based on fragmentary data.
[2] Based largely on Bureau of Mines data.
[3] Based on small sample studies.
[4] Based on comprehensive survey.
[5] Less than 50.
[6] Based on Interstate Commerce Commission data.

The major industry group with the greatest number of disabling work injuries during 1945 was manufacturing. The total of 591,600, however, was about 25 percent below the 1944 level of 786,900. In 1945, 2,700 manufacturing injuries resulted fatally, 31,000 were permanent impairments (of which 300 were permanent total disabilities), and the remainder, 557,900, were temporary total disabilities.

As in past years, the available but very meager information for agriculture indicates that this industry suffered the largest number of fatalities, 4,500. The estimated injury total of 305,600, although substantially below that for manufacturing, nevertheless exceeds that for any other major industrial group except the one including miscellaneous industries, government, and services.

The injury experience in mining and quarrying during 1945 was considerably better than in 1944. The total of 82,100 was nearly 11 percent lower than the 1944 total. The number of fatalities similarly declined from about 1,700 in 1944 to about 1,500 in 1945.

In the large group of services, government, and miscellaneous industries, the injury total dropped appreciably from 419,300 in 1944 to 378,000 in 1945. On the other hand, a small increase was found for railroads, while construction disabilities increased from 99,600 to 112,200, of which 1,700 were fatalities. In the trade group, the total rose from 273,800 to 296,000, and the public utilities group had an increase of 1,000 over its 1944 total of 19,300. The miscellaneous transportation group also registered a small increase, from 135,100 to 139,900.

Injury-Frequency Rates

MANUFACTURING

Although the largest number of manufacturing industries experienced decreases in their injury-frequency rates, the frequency rate for the entire group went up slightly, from 18.4 in 1944 to 18.6 in 1945. Out of 118 identical manufacturing industries covered in the surveys of both years, 70 had decreases of 1 or more frequency points, and only 17 had increases. In 31 others the change was negligible.

For the entire group, nearly 36,000 establishments with more than 9 million workers reported their injury experiences to the Bureau. Of the total of more than 350,000 reported injuries, 0.5 percent ended fatally or in permanent total disability, 5.2 percent resulted in permanent partial impairments, and the greatest proportion, 94.3 percent, in temporary total disability. The average time charge per permanent partial impairment was 968 days, and the average duration of temporary total disabilities was 19 days. Both of these averages are above the 1944 figures. Particularly significant is the increase in the average duration of temporary total disability, from 17 to 19 days.

As in past years, the logging industry led all other manufacturing industries with a rate of 92.0—an appreciable increase over the 1944 rate of 85.4. Far behind, but far ahead of other manufacturing industries, were sawmills, with a rate of 56.6—only slightly worse than the 1944 rate of 55.6. Iron foundries had a rate of 44.8, and veneer mills, of 44.6; rates for each of these industries were computed for the first time in this survey. The rate for breweries declined from 46.2 to 43.5, but still ranked sixth highest among manufacturing industries. The average number of disabling injuries per million employee-hours worked declined sharply in the wooden container industry, from 47.1 to 41.1, but still remained one of the highest in the group.

The explosives industry, usually regarded as extremely hazardous, had the lowest frequency rate among manufacturing industries in 1945—3.6. When accidents did occur, however, they were very

serious—7.4 percent resulted in death or permanent total disability, and 12.0 percent in permanent partial impairments. The average duration of temporary total disabilities was 49 days.

Similarly low frequency rates were found for the millinery industry (4.0), bookbinding (4.2), the manufacture of women's and children's clothes (4.6), and electric light bulbs (5.1).

NONMANUFACTURING

Stevedoring operations outranked every other industry in this group with a frequency rate of 87.6, only slightly below the 1944 rate of 88.1. It is very likely, however, that both of these rates fall considerably short of the true frequency rate for this industry.

Trucking and hauling, with less than half the stevedoring rate, ranked second highest in this group with a rate of 37.5, a slight improvement over the 1944 rate of 38.3. A slight rate decrease was experienced also by highway construction, from 36.0 to 35.8. A more sizable decrease in rate was found for the warehousing and storage industry, from 37.5 to 34.3. The 1945 rate for building construction, 30.9, was almost the same as the 1944 rate, 30.6.

Each of the five industries with the lowest frequency rates in nonmanufacturing had a rate less than the lowest rate experienced by any of the manufacturing industries. Thus, the rate for radio broadcasting was 1.7; apparel retailing, 2.2; insurance 2.8; and for banks and telephone, 3.0, respectively.

Whereas most of the manufacturing industries registered frequency-rate decreases, the trend among nonmanufacturing industries was more evenly divided. Out of 43 identical classifications, 12 had higher rates in 1945 than in 1944, 7 had lower rates, and 22 showed little difference.

Work Injuries In Manufacturing, Second Quarter 1946

INCREASED industrial activity during the second quarter of 1946 led to a sharp rise in the volume of work injuries to employees of manufacturing establishments. Approximately 124,000 such workers were disabled by on-the-job injuries during the 3-month period. This total represents 16,500 more injuries than occurred during the preceding quarter, and 13,000 more than occurred in the last quarter of 1945. It is, however, 23,000 less than the total for the comparable quarter of 1945.

Despite the substantial increase in the actual number of injuries, the ratio of injuries to time worked during the second quarter remained practically unchanged from that of the first quarter. In the first 3 months of 1946 there were 18.2 disabling injuries for every million employee-hours worked and in the second quarter, 18.1. Each of these averages, however, was substantially higher than the injury-frequency rates for the corresponding quarters of 1945.

Reports from over 10,000 establishments, with a total of nearly 4,000,000 employees, indicate that about 400 manufacturing workers died during the second quarter of 1946 as a result of work injuries; about 5,200 suffered some form of permanent physical impairment; and over 118,000 lost at least a day each. Because many of the injured

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persons had not fully recovered at the time the reports were prepared, it is impossible to compute the full cost of these injuries at this time. The actual time lost from work during the quarter as a result of these injuries, however, may be conservatively estimated as about 2,480,000 man-days. This was time enough for the injured workers to have earned approximately $20,000,000 in wages if they had been working.

Among the 116 industry classifications for which second-quarter data were available, the plants manufacturing synthetic rubber ranked first with the very low average of 2.9 disabling injuries per million employee-hours worked. Second place was held by the plants manufacturing electric lamps (bulbs) with an average frequency rate of 3.3. Three other industry groups with average injury-frequency rates of less than 5 were women's and children's clothing (3.9); aircraft (4.4); optical and ophthalmic goods (4.7). The explosives industry, which in previous quarters regularly had one of the lowest injury-frequency rates, had a rate of 6.7 in the second quarter as compared with 4.1 in the first quarter.

The highest injury-frequency rate for any of the industry classifications was 64.6 for plants engaged exclusively in sawmill operations. The plants performing both sawmill and planing-mill operations, however, had a rate nearly as high, 59.7. Iron foundries, with an average frequency rate of 46.9, had the third highest rate.

Comparisons between the first- and second-quarter frequency rates of the 113 industry classifications shown in both quarters, showed no evidence of any general trend toward higher or lower rates. Thirty of the industry classifications had second-quarter frequency rates which differed from their first-quarter rates by less than a full frequency-rate point; 33 showed increases of from 1 to 5 points; and 32 showed similar decreases. Only 11 of the second-quarter rates for specific industry classifications were as much as 5 points higher than the corresponding first-quarter rates. Counterbalancing these increases, there were 7 industry rates which had dropped by 5 or more points. The most pronounced change was in the frequency rate for sawmills, which rose from 53.2 in the first quarter to 64.6 in the second. The average rate for plants manufacturing automotive electrical equipment, which rose from 11.5 to 19.1, however, showed a greater proportionate change. The greatest reduction was in the rate for plants manufacturing plumbers' supplies, which fell from 27.7 in the first quarter to 17.3 in the second quarter.

Industrial Injury-Frequency Rates [1] for Selected Manufacturing Industries, Second Quarter 1946, With Cumulative Rates for 1946

Industry [2]	Second quarter of 1946					Frequency rate	
	Number of establishments [3]	Frequency rate [4] for—				Cumulative Jan.–June 1946 [4]	1945: Annual [5]
		April	May	June	Second quarter		
Apparel:							
Clothing, men's and boys'	400	7.9	6.7	9.5	8.0	8.0	8.4
Clothing, women's and children's	314	2.7	5.5	3.5	3.9	4.1	4.6
Apparel and accessories, not elsewhere classified	14	8.2	3.7	3.1	5.0	5.5	6.3
Trimmings and fabricated textile products, not elsewhere classified	60	13.1	13.0	17.8	14.7	14.3	17.4

See footnotes at end of table.

Industrial Injury-Frequency Rates [1] for Selected Manufacturing Industries, Second Quarter 1946, With Cumulative Rates for 1946—Continued

Industry [2]	Second quarter of 1946					Frequency rate	
	Number of establishments [3]	Frequency rate [4] for—				Cumulative Jan.–June 1946 [4]	1945: Annual [5]
		April	May	June	Second quarter		
Chemicals:							
Compressed and liquefied gases	36	7.1	6.2	4.9	6.1	8.2	17.7
Drugs, toiletries, and insecticides	73	15.7	16.1	13.6	15.1	14.4	14.9
Explosives	42	7.7	6.2	6.0	6.7	5.0	3.6
Industrial chemicals	168	13.6	8.9	13.3	11.9	12.1	16.0
Paints, varnishes, and colors	57	14.4	12.9	12.9	13.4	13.7	17.6
Plastic materials, except rubber	22	6.8	4.5	5.0	5.5	6.8	9.5
Soap and glycerin	54	7.9	5.1	7.0	6.7	7.6	11.6
Synthetic rubber	25	1.5	4.7	2.7	2.9	2.4	6.6
Synthetic textile fibers	18	5.3	5.7	4.9	5.3	5.7	8.9
Chemical products, not elsewhere classified	56	18.9	24.4	22.0	21.8	21.4	15.2
Electrical equipment:							
Automotive electrical equipment	15	(6)	(6)	(6)	19.1	13.2	13.7
Batteries	27	22.4	19.5	16.8	19.6	19.1	21.8
Communication and signaling equipment, except radio	28	11.1	7.6	7.8	8.8	9.4	6.4
Electrical appliances	33	9.6	13.7	14.3	12.5	13.0	15.3
Electrical equipment for industrial use	242	11.3	9.9	10.8	10.7	11.6	9.4
Electric lamps (bulbs)	12	3.3	3.7	2.8	3.3	4.1	5.1
Insulated wire and cable	23	18.4	16.8	16.9	17.4	21.9	18.0
Radios and phonographs	131	7.6	7.0	5.8	6.8	6.6	6.8
Electrical equipment, not elsewhere classified	20	6.3	6.0	6.6	6.3	8.2	8.2
Food:							
Baking	25	17.4	16.0	16.8	16.8	18.2	18.6
Canning and preserving	33	22.3	25.9	24.7	24.3	25.3	27.2
Confectionery	5	16.2	14.8	17.1	16.0	18.7	18.1
Dairy products	81	32.7	23.8	33.0	29.8	28.3	33.1
Distilleries	38	14.0	5.0	8.5	9.0	10.6	17.1
Flour, feed, and grain mill products	7	10.5	13.1	13.1	12.3	14.2	27.6
Slaughtering and meat packing	374	29.5	30.1	29.4	29.8	33.4	32.4
Food products, not elsewhere classified	27	27.4	22.0	17.6	22.3	19.8	20.8
Furniture and lumber products:							
Furniture, wood	94	23.8	23.0	23.3	23.4	25.0	27.5
Mattresses and bedsprings	90	16.8	33.5	39.9	29.9	29.6	27.8
Wooden containers	270	39.5	44.9	42.0	42.2	43.5	41.1
Miscellaneous wood products, not elsewhere classified	106	30.8	27.6	31.8	30.1	29.7	32.1
Iron and steel:							
Bolts, nuts, washers, and rivets	44	20.6	13.2	18.3	17.6	17.1	21.6
Cold finished steel	19	(6)	(6)	(6)	22.8	26.1	22.5
Cutlery and edge tools	35	27.4	16.7	20.0	21.0	19.5	26.0
Fabricated structural steel	224	26.9	26.4	30.7	28.0	29.8	27.6
Forgings, iron and steel	124	26.7	25.8	25.9	26.1	26.9	32.5
Foundries, iron	395	48.8	46.0	46.0	46.9	46.5	44.8
Foundries, steel	102	35.7	33.0	36.2	35.0	35.5	35.9
Hardware	50	21.7	17.0	18.3	19.0	16.6	16.6
Heating equipment, not elsewhere classified	81	28.8	26.0	27.0	27.3	26.5	33.8
Iron and steel	177	9.6	10.1	10.4	10.0	9.3	8.7
Metal coating and engraving	62	14.9	27.3	21.6	21.3	23.5	31.4
Plate fabrication and boiler-shop products	135	32.7	40.4	35.9	36.4	36.1	32.8
Plumbers' supplies	36	15.9	19.9	16.2	17.3	20.5	16.4
Screw-machine products	105	21.1	16.8	20.0	19.3	18.3	15.5
Sheet-metal work	54	37.8	29.8	33.2	33.5	30.0	25.6
Stamped and pressed metal products, not elsewhere classified	233	21.6	24.4	25.6	23.9	21.3	22.2
Steam fittings and apparatus	54	25.0	26.3	19.5	23.6	23.6	22.9
Steel barrels, kegs, drums, and packages	28	25.9	11.9	11.8	16.6	18.4	31.7
Steel springs	14	28.6	22.5	28.2	26.4	25.1	17.4
Tin cans and other tinware	24	16.9	19.6	24.1	20.2	18.9	17.3
Tools, except edge tools	64	24.8	26.5	22.7	24.7	23.0	22.8
Wire and wire products	137	22.6	23.8	23.3	23.3	23.1	23.1
Wrought pipes, welded and heavy-riveted	12	(6)	(6)	(6)	22.6	20.6	19.6
Iron and steel products, not elsewhere classified	49	20.6	23.7	23.8	22.7	26.2	25.7
Leather:							
Boots and shoes, not rubber	255	11.1	13.6	12.2	12.4	11.6	10.8
Leather	24	36.1	33.5	27.2	32.3	31.2	28.4
Lumber:							
Millwork, structural	237	43.5	41.1	40.1	41.6	37.8	35.1
Sawmills	67	61.6	68.6	63.5	64.6	58.9	56.6
Sawmills and planing mills combined	36	60.7	64.9	53.3	59.7	61.0	52.6
Planing mills	97	47.7	41.9	43.7	44.3	42.3	36.9
Plywood mills	45	41.7	51.0	42.6	45.2	41.0	40.9

See footnotes at end of table.

Industrial Injury-Frequency Rates [1] for Selected Manufacturing Industries, Second Quarter 1946, With Cumulative Rates for 1946—Continued

Industry [2]	Second quarter of 1946					Frequency rate	
	Number of establishments [3]	Frequency rate [4] for—				Cumulative Jan.–June 1946 [4]	1945: Annual [5]
		April	May	June	Second quarter		
Machinery, except electric:							
Agricultural machinery and tractors	70	22.6	20.2	19.5	20.6	22.2	23.5
Bearings, ball and roller	27	21.6	13.8	16.6	17.4	16.1	15.8
Commercial and household machinery	102	11.6	12.6	14.7	12.9	13.0	15.3
Construction and mining machinery	114	25.8	25.0	26.2	25.6	25.0	25.9
Elevators, escalators, and conveyors	31	33.6	28.6	29.0	30.4	26.6	15.1
Engines and turbines	48	18.7	16.2	12.4	15.8	17.4	12.4
Food products machinery	53	30.0	24.9	27.8	27.6	26.4	20.8
General industrial machinery, not elsewhere classified	213	27.4	23.3	22.0	24.5	23.3	18.1
General machine shops (jobbing and repair)	96	20.5	31.6	20.5	24.1	21.3	18.1
Mechanical measuring and controlling instruments	59	15.4	11.1	13.7	13.4	13.8	11.5
Mechanical power transmission equipment, except ball and roller bearings	70	26.3	20.5	19.7	22.2	21.5	19.8
Metalworking machinery	478	16.9	16.8	17.8	17.2	16.1	15.8
Pumps and compressors	80	22.9	25.8	23.1	23.9	24.4	17.5
Special industry machinery, not elsewhere classified	105	30.8	27.6	26.7	28.3	27.8	20.9
Textile machinery	28	13.4	13.0	16.4	14.2	14.9	14.1
Nonferrous metals:							
Aluminum and magnesium products	14	(6)	(6)	(6)	23.8	25.2	16.5
Foundries, nonferrous	233	30.4	27.9	25.4	27.9	27.3	25.5
Nonferrous basic shapes and forms	21	12.0	10.9	15.4	12.8	14.2	18.6
Watches, clocks, jewelry, and silverware	27	7.3	8.8	8.3	8.1	8.2	9.0
Nonferrous metal products, not elsewhere classified	71	16.2	16.3	14.1	15.5	17.5	25.3
Ordnance:							
Ordnance and accessories, not elsewhere classified [7]	30	9.2	7.9	9.3	8.8	8.9	14.7
Paper:							
Paper boxes and containers	329	24.1	26.5	21.9	24.2	24.4	22.6
Paper	246	31.0	31.7	29.6	30.8	31.6	28.6
Paper and pulp, integrated	99	25.8	20.7	22.3	22.9	24.2	23.6
Pulp	20	(6)	(6)	(6)	40.0	40.0	29.4
Paper products, not elsewhere classified	31	19.5	18.1	15.0	17.5	19.5	21.0
Printing:							
Book and job printing	35	10.8	11.4	7.5	9.9	9.7	8.5
Rubber:							
Rubber boots and shoes	13	21.8	15.3	15.3	17.4	13.4	12.5
Rubber tires and tubes	26	17.0	19.9	18.3	18.5	15.8	13.5
Rubber products, not elsewhere classified	73	23.8	18.8	19.3	20.6	20.4	18.2
Structural clay products:							
Glass	39	16.1	18.7	17.0	17.3	16.3	15.7
Pottery and related products	29	20.6	23.1	22.2	22.0	21.4	18.5
Stone, clay, and glass products, not elsewhere classified	38	24.9	24.0	21.0	23.3	18.7	18.0
Textiles:							
Cotton yarn and textiles	188	11.6	11.6	10.3	11.2	12.3	15.1
Dyeing and finishing textiles	53	21.9	16.7	20.5	19.7	18.7	19.5
Knit goods	77	10.6	12.8	11.0	11.5	10.8	7.7
Rayon, other synthetic and silk textiles	49	13.2	12.0	11.3	12.1	10.7	14.2
Woolen and worsted textiles	144	21.1	19.3	17.4	19.3	18.4	20.1
Miscellaneous textile goods, not elsewhere classified	16	(6)	(6)	(6)	18.4	18.4	21.1
Transportation equipment:							
Aircraft	20	5.0	3.6	4.6	4.4	5.1	9.4
Aircraft parts	34	13.6	9.2	10.2	11.0	11.5	10.6
Motor vehicles	71	14.6	15.1	16.7	15.5	12.9	13.0
Motor-vehicle parts	88	26.5	23.0	22.1	23.9	23.6	20.1
Railroad equipment	44	24.8	17.8	15.5	19.5	21.7	20.1
Shipbuilding	113	25.0	25.4	25.8	25.4	23.8	23.3
Miscellaneous manufacturing:							
Fabricated plastic products	39	12.0	13.7	15.9	13.9	14.6	17.4
Optical and ophthalmic goods	18	3.8	5.5	4.8	4.7	4.8	8.8
Photographic apparatus and materials	29	7.3	6.4	6.5	6.8	7.2	6.6
Professional and scientific instruments and supplies	57	4.8	8.7	9.5	7.7	9.0	7.1
Miscellaneous manufacturing, not elsewhere classified	185	17.8	18.8	15.5	17.4	17.5	11.6

[1] The frequency rate represents the average number of disabling industrial injuries for each million employee-hours worked.
[2] A few industries have been omitted from this table because the coverage for the month did not amount to 1,000,000 or more employee-hours worked.
[3] Number of establishments shown are for June.
[4] Computed from all reports received for the month; not based on identical plants in successive months.
[5] Final, based upon comprehensive annual survey.
[6] Not available.
[7] Includes all ordnance classifications formerly shown separately.

Workers' Education

Trade-Union Studies—A British Experiment[1]

WORKERS' education is not new in Britain. From the beginning of the twentieth century there has been an organized attempt by the unions and other labor groups to provide opportunities for study of the social sciences. Primarily this has been carried on by the Workers' Educational Association and the National Council of Labor Colleges. The WEA, in its 1945 annual report, shows a total of 4,663 grant-earning classes, attended by 89,334 students. The NCLC, which is more specialized in its activity, in 1944 reported 11,879 students in 696 classes and a record number of 15,835 correspondence-course students. The Army Bureau of Current Affairs (ABCA) so successfully developed discussion classes and poster and pamphlet display during the war that it was adapted to peacetime purposes as the BCA. Through this agency, discussion leaders are being trained.

In the period 1909 to 1924, the South Wales Miners Federation and the National Union of Railwaymen maintained a small residential labor college, which had broken away from Ruskin College in 1909. Ruskin College has continued to function except for interruptions owing to the war.

Trade-Union Studies

In 1945, the London School of Economics, which owes its origin very largely to the work of Beatrice and Sidney Webb, set up special courses called "Trade-Union Studies," which in certain respects parallel the Trade-Union Fellowships now in their fifth year at Harvard. The subjects offered in these courses are outlined below:

(*a*) Introduction to Economics, with special reference to the Labor Market. A series of weekly lectures and classes on the main problems of applied economics and economic policy.

(*b*) Contemporary Trade-Unionism. A series of weekly lectures and classes in the main problems of trade-union organization, administration, and policy.

(*c*) British Economic and Social History, with special reference to the growth of Labor Movements. A series of weekly lectures and classes on the main historical problems of interest to students of the British trade-union movement.

(*d*) Law, with special reference to trade-unionism. A series of weekly lectures and classes in the main legal problems of interest to trade-unionists.

(*e*) An introduction to the Political and Social Organization of Great Britain. A series of weekly lectures and classes on British political and social organization; the main problems of the Social Services, including Social Insurance, and allied subjects.

(*f*) Elementary Statistics and Accountancy. A series of weekly lectures and classes on the methods of statistical computation, the main statistical sources, and the elements of business accountancy.

A weekly series of talks and discussions on current problems of the trade-union movement will be held. It is hoped that a number of

[1] Prepared by Mark Starr, Educational Director, International Ladies' Garment Workers' Union.

prominent leaders and students of the trade-union movement will open the discussion.

The additional subjects that can be studied through the ordinary lecture course and classes at the school include economic theory, modern economic and political history, the theory and practice of government, sociology, international relations, law, etc.

Leaders of the British trade-union movement felt the need of intensive training for those who aspired to full-time service in the trade-union movement, either as administrative officers in their own union or as organizers and propagandists for trade-unionism generally. (Such training will supplement the extensive work carried on by the study classes and correspondence courses provided for the rank and file.) Students were to show that they possessed training and experience sufficient to enable them to profit from the work.

The Trade-Union Studies have completed their first year. It is difficult to draw definite conclusions so early. The shift of the London School of Economics back to its original premises from Cambridge was a distrubing factor. Professor Durbin, who was to play a leading role in guiding the experiment, was no longer eligible after being elected to the House of Commons, because the school does not permit either trade-union officials or Members of Parliament to serve as instructors. (While no trade-union officers are allowed to teach, they may visit and advise students.)

Nine students were in residence during the first year. They took 7 hours of lectures, 6 hours of class work, wrote one essay a week, and audited other classes and courses under guidance of their tutors. Age limits are 18 to 35. Students are given an allowance of £250, with an additional allowance of £10 for books and special allowances in the case of dependents. The course is planned for 1 year; evening half-time students cover it in 2 years.

No attempt is made to give specialized training for organizers and propagandists either of the Labor Party or of trade-unions. The Labor Party has its own training groups for activists and officers. They receive general background courses which are expected to be useful in the labor activity of the members.

There is an advisory committee, composed half of labor representatives and half of representatives of the school. Most of the students are chosen by their unions through examinations, but the classes are not confined to members so selected. The student's trade-union record is an important factor in his eligibility.

So far, financing of the courses has been made possible by an educational trust which expends funds provided from dividends of the Daily Herald, of which the Trades Union Congress is part owner.

The Trade-Union Studies experiment is a modest beginning which will serve as a pilot plant in Britain for the other universities. The trend toward teaching of industrial relations is more pronounced in the United States, because American universities are less bound than the British by caste and tradition. Further developments in this field will be made possible by the program of the labor extension service of the Division of Labor Standards in the U. S. Department of Labor, "to promote amicable industrial relations through encouragement of voluntary programs of labor education directed both toward the training of capable union leaders and a membership well informed in the rights and responsibilities of unionism."

Labor-Management Disputes

Controversies and Significant Developments, August 1946

DURING August, labor focused its attention upon developments in the field of consumers' prices and withheld decision upon a general wage policy to guide its future collective-bargaining negotiations. The executive council of the American Federation of Labor, in its quarterly meeting, officially refrained from public comment on the wage-price situation, although various members of the council expressed grave concern over the prospects of imminent inflation. Several hundred CIO officials, also meeting in mid-August, likewise took a serious view of a recent round of price increases approved by OPA and declared that the future of wage stabilization "will be decided in the next 30 days." The CIO asserted that "the ever-widening chasm which separates the real wages of the American worker from the paper wage adjustments embodied in contracts cannot be bridged by hopes, theories, propaganda, or abstractions." Following the CIO's conference, the United Automobile Workers' executive committee authorized its Chrysler local in Detroit to file formal notice with the company that it intended to take advantage of the 60-day wage negotiation reopening clause contained in its agreement. Similar action, the UAW indicated, would be taken by other locals whose agreements also provide for the reopening of wage issues.

Both AFL and CIO leaders appeared before the recently created Price Decontrol Board to urge the restoration of controls over basic foodstuffs. A spokesman for the railroad labor organizations declared that, if the Government failed to control prices in this emergency, labor would be forced to demand increased wages and cost-of-living bonuses "in an attempt to stay even."

Organized labor's reaction to the Price Decontrol Board's order of August 20, restoring price controls on livestock and meat, on cottonseed and soybeans and their products, but leaving prices of dairy products and grain uncontrolled, was generally unfavorable. Philip Murray, president of the CIO, asserted that the Board "failed to keep faith with American workers." He claimed: "The action of the board members indicates a lack of understanding of the seriousness of the inflationary price rises that have accrued since the demise of OPA on June 30. Failure to reestablish price control on milk and dairy products, flour, and bread places great hardships upon workers' families. Prices of 50 percent of the daily purchases of foodstuffs are still left free to rise." The CIO intended, Mr. Murray added, to "urge the Decontrol Board to reconsider its decision and reinstate ceilings on all items it failed to control." William Green, AFL

president, regarded the recontrol of meat as a "constructive step," but insisted that the Board should have gone further and put controls back on many other items. Mr. Green further stated that "it is perfectly proper to lift controls on articles when production approximates market requirements . . . but where prices are soaring and inflation threatens, it is necessary to exercise effective control." Robert J. Watt, AFL member of the National Wage Stabilization Board, declared that the Federation had become "completely disillusioned" with Government control of prices and wages and that the OPA was "completely powerless to reduce prices."

Great Lakes Shipping Stoppage

Responding to the strike call of their national council, approximately 1,100 members of the National Maritime Union, CIO, employed by 11 dry cargo ship companies and 6 tanker operators, left their vessels in various Great Lakes ports on August 15. By August 22 (when an agreement was reached with the Standard Oil Co. of Indiana, one of the principal shippers involved), the union reported that 132 vessels were tied up, with 5,000 seamen idle.

The stoppage followed several months of negotiations with the various ship operators, members of the Lake Carriers Association, largely engaged in transporting coal, iron ore, steel, grain, and oil. Original union demands included wage increases of from 10 to 18 cents per hour, severance pay, sick leave, preferential hiring, and a 40-hour week. When negotiations reached a stalemate in June, the NMU filed a strike notice under the War Labor Disputes Act, setting August 15 as the strike date. Efforts of the U. S. Conciliation Service to resolve the differences between the operators and the union were unsuccessful, despite the NMU's offer to accept a 44-hour week in lieu of its 40-hour request.

Shortly after the strike began, shipping at Chicago and nearby Indiana ports, at Buffalo, Ashtabula, Duluth, Milwaukee, Superior, Toledo, and Erie was affected. Picket lines were established at all ports and, in Detroit and Manitowoc, dock workers, respecting the picket lines refused to handle shipments of steel and automobiles. Operations of car ferries of the Pere Marquette, Wabash, Grand Trunk, and Ann Arbor railways also were interrupted. The union claimed that 1,500 unorganized seamen were out in support of the strike by August 16.

As the stoppage spread, negotiations were reopened in Chicago with the Standard Oil Co. of Indiana, and in New York with the Bethlehem Transportation Co. Proposals made by these two companies for settlement on the basis of a 48-hour week were rejected by the union, but on August 22 an agreement was reached with the former, providing for a 44-hour workweek in port, with Saturday the overtime day after 12 noon, a 48-hour week at sea, with Sunday the overtime day, and the 40-hour week during fit-out and lay-up time in port. Overtime rates were agreed upon and provision was made for reopening the wage question in January 1947. A generally similar agreement was reached the next day with the Bethlehem Transportation Co., and employees of these two companies returned to work. By the end of August settlements, patterned generally after the agreement with the Standard Oil Co. of Indiana, had been reached with all except seven

companies; the strike against these, the NMU announced, would continue.

Press Wireless Stoppage

Approximately 300 workers, members of the American Communications Association, CIO, stopped work at the New York and Long Island offices of Press Wireless, Inc., early on August 7 in protest against the lay-off of 46 of the operating staff and the proposed down-grading of other workers. In an effort to increase the effectiveness of its strike, the union on August 12 declared an "embargo" against transmission of foreign news dispatches by its members employed by other wire and cable communications companies. This action reduced the flow of dispatches to such services as the Associated Press, United Press, International News Service, and Reuters. The transmission of Government and commercial messages, however, was not affected.

Each party to the dispute maintained that the other had violated its agreement by refusing to arbitrate the dispute. The union contended that the lay-offs should have been deferred, pending arbitration; and the company claimed that arbitration should follow the lay-offs, if the union was dissatisfied. The company insisted that the adjustments were made necessary by the decrease in volume of dispatches, following the end of the war, and by the reinstatement of returned servicemen. Negotiations, carried on with the help of Federal conciliators, resulted in an agreement on August 19 to submit the dispute to arbitration, with Arthur S. Meyer, chairman of the New York State Mediation Board, as arbitrator. This agreement ended the union's "embargo." The arbitrator's interim ruling on August 20 held that the company was not justified in laying off employees without advance arbitration, citing the contract provision that both parties should meet to discuss the facts if "conditions should arise which appear to warrant reduction in personnel or reduction in regular hours of work with a corresponding reduction in pay." Arbitration was to follow, should agreement not be reached. The decision paved the way for the return to work of ACA employees of Press Wireless and the reinstatement of the discharged workers, with pay retroactive to August 7, pending arbitration on the merits of the lay-offs and the down-grading of other workers. Picket lines were discontinued on the evening of August 20, and the striking workers returned the next day. On August 29 the arbitrator, ruling on the merits of the case, decided that the lay-offs made by the company were justified.

Work Stoppages in July 1946

LESS working time was lost through labor-management disputes in July 1946 than in any other month since the end of the war. The number of strikes occurring in July, however, was higher than in any preceding month of this year, owing primarily to a relatively large number of small wage disputes which followed the temporary termination of OPA controls at the end of June.

About 185,000 workers were involved in the 480 stoppages beginning in July, according to preliminary estimates of the Bureau of Labor Statistics. These disputes, together with 320 which began prior to July, made a total of 800 stoppages, involving 365,000 wage earners, in effect at some time during the month.

In contrast with previous postwar months, which were marked by one or more large-scale stoppages, the largest strike beginning in July involved but approximately 8,000 workers of the United States Rubber Co. at Detroit. The strike of more than 20,000 workers at plants of the Allis-Chalmers Manufacturing Co. in 6 States, which began in March and April, and continued through July, was the largest stoppage in effect during the month.

TABLE 1.—*Work Stoppages in July 1946, With Comparable Figures for Earlier Periods*

Period	Work stoppages beginning in the period		Man-days idle during period (all stoppages)	
	Number	Workers involved	Number	Percent of available working time
July 1946 [1]	480	185,000	3,300,000	0.48
June 1946 [1]	350	150,000	3,800,000	.65
July 1945	523	325,000	1,769,000	.24
January–July—				
1946 [1]	2,625	3,130,000	88,800,000	2.09
1945	2,764	1,649,400	8,708,000	.17
1944	3,008	1,195,200	5,046,000	.09
1935–39 average	1,792	734,000	10,884,000	

[1] Preliminary estimates.

Activities of the United States Conciliation Service, July 1946

During July 1946 the United States Conciliation Service terminated 1,438 dispute cases involving 461,156 employees, and 85 cases other than disputes, involving 2,704 employees. During the month, the number of assignments to disputes dropped about 6 percent, from 1,365 in June to 1,281 in July.

Approximately a fourth of the dispute cases terminated during July were work stoppages. However, 62 percent of such cases had reached the stoppage stage prior to assignment of commissioners of conciliation. Almost two-fifths of the total number of disputes terminated were threatened work stoppages; the remainder were controversies and other disputes disposed of by the arbitration and technical divisions of the Conciliation Service. There were 8 dispute cases, involving 1,629 employees, which were closed without an agreement having been reached by the parties. Eighty-eight percent of all disputes, other than those which were stoppages at the time of assignment, were terminated prior to a work stoppage.

Cases Closed by the U. S. Conciliation Service in July 1946, by Type of Situation and Type of Disposition

Method of handling	Total		Work stoppages		Threatened work stoppages		Controversies		Other situations	
	Number	Workers involved	Number	Workers involved	Number	Workers involved	Number	Workers involved	Number	Workers involved
All methods	1,523	463,860	368	115,138	553	167,801	419	160,197	183	20,724
Settled by conciliation	1,288	430,716	347	112,836	535	158,789	406	159,091	------	------
Unable to adjust	8	1,629	4	789	3	773	1	67	------	------
Referred to other agencies	44	10,791	17	1,513	15	8,239	12	1,039	------	------
Decision rendered in arbitration	[1] 84	14,605	------	------	------	------	------	------	84	14,605
Technical services completed	14	3,415	------	------	------	------	------	------	14	3,415
Special services	85	2,704	------	------	------	------	------	------	85	2,704

[1] This figure includes 9 arbitration cases involving 1,140 employees in which settlements other than arbitration decisions were made.

Labor Laws and Decisions

Recent Decisions of Interest to Labor[1]

Decisions of National Labor Relations Board

EMPLOYER'S good faith in collective bargaining further defined.—Two recent rulings of the National Labor Relations Board shed some light as to what constitutes good faith on the part of the employer in bargaining collectively in making counterproposals to union demands.

In the first case[2] the Board found that the employer refused to bargain with the union by failing to reply to its written request to bargain; by failing to designate one of his representatives to bargain with the union, by direct action forbidding any of them to do so; and by refusing to submit counterproposals to any of the provisions of the union's proposed agreement during union attempts to bargain with the employer over a 4-month period.

In the second case[3] the Board found that the employer had violated the National Labor Relations Act by failing to give his representatives authority to bind him and by repudiating agreements reached between the parties. The Board pointed out that one of the elements constituting good faith included the designation of representatives with authority to act. Nevertheless, when the employer insisted on his counterproposals as a basis for discussions during the negotiations, such conduct was not evidence of bad faith, as the counterproposals dealt with the entire scope of the union's demands.

Basic requirements for closed-shop contracts.—A provision in a union agreement requiring employees to make application to join the contracting union does not create a closed shop and does not bring a discharge thereunder within the protection of section 8 (3) of the National Labor Relations Act. Therefore, the employer's discharge of an employee would be discriminatory.[4] The test for a closed-shop agreement, according to the Board, is that the agreement must require employees (1) to join the union; and (2) to maintain their union membership in good standing as a condition of employment. In this case, the Board ruled that an employer had discriminatorily discharged an employee for failure to carry out her alleged obligations under the agreement to become a member of the union within the 30-day period. The agreement merely required an employee to make

[1] Prepared in the Office of the Solicitor, U. S. Department of Labor. The cases covered in this article represent a selection of the significant decisions believed to be of special interest. No attempt has been made to reflect all recent judicial and administrative developments in the field of labor nor to indicate the effect of particular decisions in jurisdictions in which contrary results may be reached, based upon local statutory provisions, the existence of local precedents, or a different approach by the courts to the issue presented.

[2] *In re West Side Cooperative Creamery Association and General Drivers' and Helpers' Union, Local 329 (AFL)*, 69 NLRB 69.

[3] *In re Atkins Mfg. Co. and Textile Workers Union of America (CIO)*, 69 NLRB 75.

[4] *In re Iron Fireman Mfg. Co. and Portland Aircraft Workers Local 737 (AFL)*, 69 NLRB 4.

application for union membership within 30 days. The Board further pointed out that had this been a bona fide closed-shop agreement, the employer's discharge would still be discriminatory, as the employee was discharged before the end of the 30-day period.

Distinction between foreman's resignation and constructive discharge.—An ultimatum to supervisory employees to accept demotion to their old production jobs or be discharged was held by the National Labor Relations Board to be discriminatory, since the employer objected to their continuance as foremen because of their membership in a foremen's union.[5]

The Board refused to accept the employer's defense that the employees had resigned, as the record showed that the only basis on which the employees could have continued to work and retain union membership was to accept a great reduction in wages and lose substantial rights and benefits which they held as supervisors. The Board ruled that, when men were faced with such an alternative and resigned, their resignation was a constructive discharge.

In a somewhat related case,[6] the New York Labor Relations Board ruled that when a foreman quit in protest over the discharge of employees, later found to have been discriminatory, the foreman was not entitled to reinstatement in his old job, as he had not been discharged. The foreman had protested the discharge of the employees to his employer and then quit of his own accord after being requested to stay on the job.

Fair Labor Standards Act

Home workers for company doing interstate business covered.—The District Court for the Middle District of Pennsylvania held that home workers for a company engaged in the manufacture of rag rugs for interstate commerce were protected by the wage and hour provisions of the Fair Labor Standards Act.[7] The rags came to the company from outside the State and were used in the manufacture of rugs for dealers in other States. The company truck drivers delivered the rags to the home workers for initial processing into strips and balls, which the drivers picked up on return trips, paying for the work at poundage rates.

Considering the social purpose of the Fair Labor Standards Act and the realities of the economic relation between the company and the home workers, the court rejected the contention that the home workers were independent contractors and declared them to be employees within the coverage of the act. In reaching this decision the court repudiated its own precedent to the contrary.[8]

Clerical employees of livestock commission company covered.—In a case arising in Missouri, the Eighth Circuit Court of Appeals reversed the lower court and interpreted the Fair Labor Standards Act as including within its coverage the clerical employees of a livestock commission company.[9] The company sorted, graded, and occasionally watered the livestock which it handled on brokerage consignment.

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[5] *In re General Motors Corp. Buick Motors Division*, June 28, 1946, 69 NLRB No. 17.
[6] *In re Imperial Life Boat and Davit Co., Inc.*, Case No. CU-375, June —, 1946.
[7] *Walling* v. *Freidlin, doing business as Imperial Rug Co.*, D. C., M. D. Pa., July 12, 1946.
[8] *Walling* v. *Todd*, 52 Fed. Supp. 62.
[9] *Walling* v. *Friend*, C. C. A., 8th Cir., July 12, 1946.

It took no part in transportation of the stock. Ten to 20 percent of the consignors were from outside the State, and approximately 50 percent of the stock was bought by packers who shipped most of it to other States. The workers involved in the case prepared records for sellers and buyers and received and made payments. While the business of the company, according to the court, might not be termed "commerce" in the statutory sense, it fell clearly within the provision for "production of goods for commerce," by which Congress intended a comprehensive coverage of operations incidental to putting goods into the stream of interstate trade. The court cited an opinion from the Fifth Circuit Court of Appeals, which held that a company which made cigar boxes in Florida and sold its entire output to Florida cigars manufacturers came within the act, as its cigars were distributed in interstate commerce.[10]

The employer also contended that he was engaged in "agriculture" and was therefore exempt from the act. In rejecting this argum nt, the court relied upon the interpretation of the Wage and Hour Administrator to the effect that "agriculture" includes work done by a farmer or on a farm.[11] The court referred to its statement in an earlier case, that the interpretations made by the Wage and Hour Administrator have "peculiar persuasiveness and weight."[12]

Veterans' Reemployment Rights

Lower-court rulings.—The District Court for the Western District of Washington ruled that employers could not capitalize on the increased age of the veteran as a valid excuse for discharging him within a year after his return to employment.[13] The plaintiff was a professional player employed by the Seattle Baseball Club during the seasons of 1940, 1941, and 1942. In 1941 he had been chosen the outstanding second baseman of the Pacific League. In February 1946, when he returned to professional baseball, he was nearly 35 years old. Two months later, without giving him a chance to demonstrate his ability, the baseball club dismissed him in order to make room for younger players. On this showing, the court held that the baseball club need not use the plaintiff in games; but the club was obliged to retain him in employment and not to dismiss him within the statutory 1-year period unless he was given a fair chance to perform. Although a reemployed veteran may be dismissed in less than a year for cause, he may not be dismissed because of the employer's mere prediction based on increased age. "Youth must be served," said the court, "but not at the expense of men who have worn the uniform and contrary to law."

In a case arising in the Southern District of California, the District Court held that the shift of a returned veteran within the 1-year period from a salary basis to a less-remunerative co mission basis was a violation of the employee's rights under the Selective Training and Service Act.[14] Such a shift, the court said, amounted to a dismissal "without cause" (sec. 8 (c)), defining that phrase as "the

[10] *Enterprise Box Co.* v. *Fleming*, 125 Fed. (2d) 897.
[11] Interpretative Bulletin 14, Paragraph 13, issued August 1939.
[12] *Miller Hatcheries, Inc.* v. *Boyer*, 131 Fed. (2d) 282.
[13] *Niemic* v. *Seattle Baseball Club*, D. C., W. D. Wash., June 21, 24, 1946.
[14] *Hoyer* v. *United Dressed Beef Co.* D. C., S. D. Calif., May 31, 1946.

absence of anything, in the performance of the job, which would warrant his being laid off." Reviewing the history of the defendant's business, the court concluded that conditions had not so changed as to make a restoration of employment on the original terms "impossible or unreasonable" within the contemplation of the act (sec. 8 (b) (B)).

On the other hand, the District Court for the Northern District of Alabama decided that an ex-serviceman employee had no absolute right under the act to be restored to the day shift rather than the night shift.[15] The court declared that the act was intended to protect the rights which the veteran possessed at the time of his entry into the military service, as embodied in his individual contract of employment or in collective-bargaining agreements applicable to his employment. As the employee had no contractual right of choice in this case as to day or night shift, he could not claim such a right by virtue of the act. His assignment to the night shift was held not to violate the statutory provision for "like seniority, status, and pay" (sec. 8 (b) (B)).

State Court Decisions

Right to vote without pay deduction.—The right to vote at a public election pertains to the public welfare, and a statute which, places a burden on the employer in protecting this right, is not unconstitutional.[16] Thus, the New York Supreme Court upheld a law which provided a penalty for any employer who denies an employee the privilege of voting or who subjects an employee to a wage deduction for the time spent in voting.

The employer contended that the employee in question was paid on an hourly basis for hours worked and that, in such a case, there could be no "wage deduction," and that the statute deprived the employer of his property without due process of law and was therefore unconstitutional. The court, acknowledging the burden placed upon employers by this statute, held, nevertheless, that an employer-employee relationship was such that the employer is in a position to thwart the exercise of the right to vote in an election. As such a right is one of the foundations of our society, the protection of the general public welfare far outweighs the slight burden placed on the employer.

A dissenting opinion pointed to similar statutes in other States which have been held unconstitutional. The dissenting judge took the position that the effect of such a statute was to pay a person for voting.

Check-off agreement valid as to nonunion employees.—The Supreme Court of New York held that an employer, under a closed-shop agreement, was obligated to pay to the union initiation fees and monthly dues for nonunion workers, even though such employees refused to join the union.[17]

The defendant employer contended that to deduct such payments from employees' salaries violated the Labor Law and Penal Code of

[15] *Grubbs* v. *Ingalls Iron Work Co.*, D. C., N. D. Ala., June 19, 1946.
[16] *People of New York* v. *Ford Motor Co.*, N. Y. Sup. Ct. (App. Div.), June 26, 1946.
[17] *Greenwold* v. *Chiarella*, N. Y. Sup. Ct. (App. Div.), June 28, 1946.

New York, which prohibit deductions from wages for the benefit of the employer. The court pointed out that under the closed-shop agreement the employer agreed, when union men were not available, to hire nonunion men on the condition that they immediately apply for union membership. If membership was denied, the employer was to terminate their employment as nonunion employees had no basic right to work in a "closed shop." When the nonunion employees refused to join the union and did not authorize deductions from their pay, the employer, by virtue of his agreement, was personally liable to the union for dues. As the deductions were not for the benefit of the employer but for the union, the agreement did not violate the Labor Law and Penal Code.

Collective bargaining for State government employees.—California and Florida courts have both recently held that statutes protecting and furthering collective bargaining are not applicable to State employees.

In California,[18] the District Court of Appeals reversed a lower court decision which awarded a union of municipal employees a mandatory injunction compelling the city to recognize and bargain with the union. The employees contended that a legal duty to bargain with the union existed by virtue of the Labor Code, which set forth the governmental policy of the State to protect the individual employers by fostering and protecting collective bargaining. The employers contended the Labor Code was not applicable to municipal corporations, as municipal and State employees were protected either by civil-service provisions or laws requiring the payment of prevailing hourly wages in the locality where the work is performed. The court held that the employer refused only to enter into a bargaining contract but had not refused to listen to employee complaints and suggestions, and that no distinction could be made between State activities in a proprietary capacity and in a governmental capacity. The Labor Code was enacted to protect employees of private employers and could not apply to municipal or State employees protected by civil-service and other laws in the absence of express legislative action.

The Florida Supreme Court held that the Florida Labor Code had nothing in it to compel the city to recognize and bargain with a union of municipal waterworks employees.[19] Pointing out that the city charter of Miami set forth civil-service regulations and minimum requirements regarding employees, and as the municipality had certain obligations to the people as a whole and its objects were governmental in scope rather than commercial, the court concluded that the city had no authority to enter into an agreement with the employees.

A dissenting opinion took the position that when a city acts in its corporate capacity rather than its governmental capacity, it was controlled by the same laws applicable to all private corporations engaged in like activities.

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[18] *Nutter* v. *City of Santa Monica*, Dist. Ct. of App., Calif., Apr. 30, 1946.
[19] *Miami Water Works, Local 654* v. *City of Miami*, Sup. Ct. Fla., May 24, 1946.

California Disability Benefits to Start Ahead of Schedule[1]

PAYMENTS of sickness and injury benefits in California, recently provided as an adjunct to the unemployment-compensation system, may begin on December 1, 1946 [2]—6 months ahead of the 1-year waiting period (ending May 21, 1947) specified for gathering reserves.

The advance date was made possible by (1) a determination of the Social Security Board [3] that the amended State Unemployment Insurance Act, with provisions for disability benefits, met the requirements of the Internal Revenue Code; [4] and (2) the passage of Federal legislation permitting unemployment-compensation taxes paid into the unemployment fund and collected from workers (under requirement of a few States) to be used for the payment of disability benefits in such States. The latter provision was incorporated in the Federal Social Security Act Amendment of 1946,[5] approved August 10, 1946, by the President. Under this enabling legislation, the State system may requisition such taxes from the Federal Unemployment Tax Fund for deposit in the California Disability Fund, and payment of benefits in California (according to the new State law) may begin within 90 days from the date of transfer.

Although collection of employee pay-roll taxes for disability had begun in California on May 21, 1946 (the effective date of the new law),[6] and would ordinarily continue for a year before benefits could be paid, the new disability measure contemplated that Federal authority to divert unemployment-insurance taxes paid by California workers in 1944 and 1945 from the Federal fund to the newly established State disability fund might be obtained. The amount involved for the 2 years is approximately $104,000,000.

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[1] Supplement to article, Cash Disability Benefits in California, in Monthly Labor Review, August 1946 (p. 236).

[2] This and certain other information furnished by the Social Security Administration.

[3] Now the Social Security Administration, under Presidential Reorganization Plan No. 2, effective July 16, 1946. (Federal Register, July 23, 1946, p. 7937.)

[4] Federal Register, July 10, 1946 (p. 7590).

[5] Public 719, 79th Cong., 2d. sess.; ch. 951, title IV, sec. 416. See also Amendments to Social Security Act: Hearings, May 20–June 7, 1946, before the Committee on Ways and Means, House of Representatives (79th. Cong., 2d sess.), Vol. 3, Unemployment Compensation, Washington, 1946 (p. 1478).

[6] As of July 31, 9.7 million dollars had been collected. (California Department of Employment, Report for July 1946; mimeographed.)

Prices and Cost of Living

Prices in the Second Quarter of 1946

PRICES advanced more rapidly during the second quarter of 1946 at both primary market and retail levels than in any quarter since early 1942, before general price control was inaugurated. Primary market prices rose 3.7 percent on the average, with increases for all major commodity groups, while retail prices of consumer goods advanced 2.4 percent.

This rapid advance is a reflection of wartime pressures toward higher prices which brought about gradual relaxation of price controls. In line with the general feeling that maximum production was needed to prevent inflation, OPA continued to grant substantial increases in ceiling prices for important commodities to restore earnings or to aid production.

Percentage changes in wholesale and retail prices to June 1946 from selected significant dates are shown in table 1.

TABLE 1.—*Percent of Change in Retail and Wholesale Prices, in Specified Periods*

To June 1946 from—	Percent of change in—		
	Retail prices of living essentials	Wholesale prices of—	
		All commodities	All commodities except farm products and foods
March 1946: 3 months ago	+2.4	+3.7	+3.3
August 1945: End of war	+3.1	+6.8	+5.7
June 1945: Year ago	+3.3	+6.4	+6.0
May 1943: Hold-the-line order [1]	+6.6	+8.5	+9.2
January 1941: Wage base date	+32.2	+39.7	+25.3
August 1939: Month before war in Europe	+35.2	+50.5	+31.8

[1] The President's hold-the-line order was issued on Apr. 8, 1943. The price rise which led to this order reached a peak in May, which is, therefore, used for this comparison.

Primary market prices of all commodities other than farm products and foods rose almost as much as agricultural products during the quarter. This advance is particularly significant in view of the general stability of prices of industrial goods during the war. Many of the increases had not yet been fully reflected in prices of consumer goods or highly fabricated articles. Price increases for manufactured goods in primary markets were only about half as large as for raw materials and semimanufactured products. The largest advances in prices to consumers occurred for food, clothing, and housefurnishings. Rents increased only fractionally while gas and electricity rates declined.

Since the end of the war primary market prices have advanced about 7 percent and retail prices of living essentials 3 percent.

Incomes remained high during the quarter and there were insufficient quantities of many articles to satisfy all demands. Automobiles and most consumer durable goods still were not readily available and supplies of industrial equipment were limited. Scarcity of many foods was greater than at any time during the war and in some cities the Bureau of Labor Statistics was unable to secure the usual number of retail price quotations for meats, butter, oleomargarine, bread, and canned foods. Clothing supplies improved.

Strikes in important industries in April and May seriously crippled the reconversion program. The man-days idle as a result of strikes dropped from the high levels of the first quarter but were 7 to 8 times higher than in 1945; the number of workers involved was 4 to 5 times larger than during February and March. The bituminous-coal strike began March 31 and lasted 45 days, resulting in a loss of 80 million tons of coal. By June, however, most major strikes had been settled.

The close of the quarter was a period of indecision in many markets as traders awaited final decision on the status of Government price controls and subsidies. The Price Control Extension Act of 1946 was vetoed by the President on June 29, on the ground that it "legalized inflation," and the Nation began the third quarter without price control, for the first time in nearly half a decade.

Consumer Goods

Average prices of consumer goods in retail stores advanced 2.4 percent during the second quarter of 1946 and in June were 35 percent above August 1939 prices. Food prices rose 3.9 percent, with upward revision of ceilings for important budget items such as milk, butter, and bread. The OPA policy, permitting retailers to pass on to the consumer substantial percentages of the price increases granted manufacturers, was reflected in advances of 3.9 percent for housefurnishings, 2.7 percent for clothing, and 1.6 percent for miscellaneous commodities.

Primary market prices of consumer goods rose generally, with the largest increases occurring in farm products and textiles. Prices of farm products advanced 5.0 percent, largely because of higher ceilings for grains and cereal products granted by OPA to reflect parity prices and to cover increased costs of production. Textile products were 4.3 percent higher under cost-plus-margin pricing formulas which were designed to stimulate production and to cover higher material and labor costs. Higher coal prices, following wage settlements, raised average prices of fuel and lighting materials 3.3 percent during the quarter. Prices of housefurnishing goods rose 3.3 percent and new ceilings brought food costs up 3.2 percent. OPA adjustments for both raw materials and manufactured commodities also were responsible to a large extent for an advance of 2.2 percent in hides and leather products.

Percentage changes in wholesale and retail prices of consumer goods are shown for selected periods in table 2.

Supplies of many foods reportedly were withheld at all levels, owing to speculation over proposed changes in price-control legislation and termination of subsidy payments. Livestock offerings became smaller, and as the quarter advanced, meats were almost unobtainable in retail stores. Retailers reported larger receipts of most clothing items but stocks continued to be sold out rapidly. Many textile items were still in short supply. Stoppage of bituminous-coal mining during the 45-day strike greatly curtailed production in consumer industries.

TABLE 2.—*Percent of Change in Consumers' Prices and in Prices of Consumer Goods in Primary Markets, in Specified Periods* [1]

Commodity group	Percent of change				
	In last quarter, Mar. 1946 to June 1946	From end of war, Aug. 1945 to June 1946	In last year, June 1945 to June 1946	From hold-the-line order,[2] May 1943 to June 1946	From month before war in Europe, Aug. 1939 to June 1946
Consumers' prices: All items	+2.4	+3.1	+3.3	+6.6	+35.2
Food	+3.9	+3.3	+3.2	+1.8	+55.7
Clothing	+2.7	+7.4	+8.1	+22.9	+56.7
Rent	+.1		+.2	+.5	+4.0
Fuel, electricity, and ice	0	−.8	+.5	+2.7	+13.3
Gas and electricity	−.9	−3.3	−3.3	−4.2	−7.0
Other fuels and ice	+.5	+.9	+3.1	+8.2	+33.3
Housefurnishings	+3.9	+6.9	+7.1	+24.8	+55.2
Miscellaneous	+1.6	+2.7	+3.1	+10.9	+27.4
Consumer goods (primary market prices):					
Farm products	+5.0	+10.4	+7.4	+11.5	+129.7
Foods	+3.2	+6.1	+5.0	+2.2	+68.0
Hides and leather products	+2.2	+3.7	+3.7	+3.9	+32.0
Textile products	+4.3	+9.6	+9.6	+12.1	+61.1
Housefurnishing goods	+3.3	+5.6	+5.6	+7.5	+29.0
Fuel and lighting materials	+3.3	+3.5	+4.6	+8.7	+20.9

[1] In comparing retail and primary-market price movements the following differences between the consumers' price and primary-market price index must be noted: The consumers' price index includes only selected goods and services purchased by moderate-income families in large cities, and reflects in part the effect of disappearance of lower-priced articles. The primary-market indexes represent all commodities and are based on goods with unchanged specifications.

[2] The President's hold-the-line order was issued Apr. 8, 1943. The price rise which led to this order reached a peak in May, which is, therefore, used for this comparison.

Production in many lines increased, however, as the quarter progressed, and CPA reported production in June had reached a postwar peak. In May, shipments of washing machines were 16 percent above the 1940–41 rate and shipments of gas ranges were well above prewar rates. While still below prewar production levels, refrigerators and sewing machines showed monthly gains in spite of unsettled labor conditions and shortages of materials and parts. Automobile manufacturers were able to maintain their April rate of production through May, although there was considerable disruption in receipt of materials. Supplies in most lines of durable goods, however, were still insufficient and furniture retailers were forced to shift to higher-priced lines to obtain merchandise.

Scarcity of materials, aggravated by diversion to black markets, hampered residential construction during the quarter. Sales prices continued to rise, although rents remained stable under Government control. Residential construction activity continued upward, the

estimated value of work accomplished rising to 290 million dollars in May as compared to 45 million dollars a year earlier.

The rising cost of goods and services combined with more severe scarcities of living essentials and disappearance of low-end goods made the first half of 1946 a difficult period for the consumer. Although average hourly earnings in manufacturing industries reached record levels in May, average weekly earnings declined slightly between April and May, principally because of a shorter workweek. Purchases of needed durable goods and higher living costs tended to reduce savings of consumers, according to estimates released by the Securities and Exchange Commission which showed that liquid savings of individuals during the first quarter of 1946 were only a third as high as during the first 3 months of 1945. Many war workers who had been laid off because of reduced production schedules and other workers who were out on strike or unemployed because of material shortages were forced to use their savings for day-to-day living.

FARM PRODUCTS AND FOODS

Continuing the advance begun early in the year, prices of farm products in primary markets rose 5.0 percent during the second quarter. Wholesale food prices moved upward 3.2 percent and retail prices 3.9 percent, to the highest levels since the early 1920's. The increases were led by grains and by the usually stable dairy products and cereal and bakery products.

The food situation during the quarter was dominated by the Government's famine relief program and uncertainty over price-control legislation. Meat and other commodities which had been in inadequate supply, such as butter, margarine and other fats and oils, disappeared from grocers' counters. Flour became scarce and a bread shortage developed.

Prices for grains in primary markets increased 11 percent during the quarter, owing to upward ceiling adjustments effective May 13, designed to reflect parity to growers for the coming year. The increases averaged 6 percent for oats, 7 percent for barley, 8.5 percent for wheat, and 20 percent for corn. Rye prices, uncontrolled until June 1, in April reached the highest level in 28 years, then declined gradually until mid-May, when they were still more than 40 percent above proposed ceilings, trading being negligible thereafter.

These upward ceiling adjustments, the first major break in ceilings for agricultural commodities, were closely related to the Government's stringent export program. During the quarter the wheat extraction rate was maintained at 80 percent and various additional limitation measures were instituted to conserve grain supplies, including inventory limitations and reduction of grain purchases by distillers and livestock feeders. To accelerate the movement of grain from farms, a "certificate plan" was inaugurated in early April for the purchase of wheat for immediate delivery, in which the seller was allowed the market price prevailing on any day before March 31, 1947. An additional incentive—a bonus of 30 cents per bushel of wheat or corn—was offered for current deliveries to the Government, but was discontinued in May, following the ceiling increases. The purchase program virtually halted domestic cash sales in wheat and corn, and

futures trading was suspended in some important markets in mid-June. Flour mills were forced to shut down and bread production declined.

Prices for cereal and bakery products rose 5.7 percent at wholesale and 10.7 percent at retail during this period. The 10-percent reduction in the weight of bread sanctioned March 15 without price reduction, became mandatory on June 1. In mid-June bakers were also granted a 10-percent price rise to compensate for the cost increase created by the cut in production. Flour subsidy rates were increased in late May and June to cover higher grain costs without raising prices.

Livestock and poultry prices increased approximately 3 percent from March to June, as marketing through regular channels dwindled in anticipation of removal of price controls and termination of subsidies. Meat production in non-federally inspected plants was at record levels and there were reports of black market sales in large volume. As a result, wartime slaughter controls were reimposed on April 28. In May and June the Nation experienced the worst meat scarcity in its history. Prices for meats at wholesale and retail rose, reflecting ceiling increases to cover approved wage adjustments.

Prices for better grades of eggs, below ceilings in April because of excessive supplies and the shortage of storage space, moved up seasonally in May and June with demand strengthened by the growing meat scarcity. However, wholesale prices for lower grades of eggs weakened in June because of large stocks and the slackened demand from the bakery trade with reduction of the sugar quota. Retail prices averaged 51.0 cents per dozen in 56 large cities in June as compared to 47.8 cents in April.

Wholesale prices for dairy products increased 10 percent and retail prices 8 percent, during the quarter, reflecting upward ceiling revisions to compensate dairy farmers for the loss of the feed subsidy payment on June 30 and to correct the unfavorable price relationship existing between manufactured dairy products and fluid milk. In June housewives were paying 11 percent more for butter, 3 percent more for cheese, and 5 percent more for fluid and canned milk than in May.

Fruit and vegetable prices rose 2 percent at wholesale, and only a tenth of 1 percent at retail. Decreases among fresh fruits and vegetables tended to offset increases for dried fruits and vegetables, resulting from upward revisions in maximum prices to cover wage adjustments. Wholesale and retail prices of oranges in June were 22 and 14 percent, respectively, above April levels, following upward ceiling revisions to cover increased costs. White potatoes, not under control at the time, increased seasonally from March to May. However, sharp declines occurred in June because of large crops and the reinstatement of ceilings from May 24 through June 19 to prevent excessive rises during the emergency period created by the railroad workers' strike.

Retail sugar prices rose 3 percent, reflecting the increases in prices of raw and wholesale refined sugar in February. Refiners were granted an additional rise of 10 cents per hundred pounds, effective June 24, in order to maintain operating margins.

Prices for coffee were relatively stable with the 3-cent per pound subsidy paid to importers extended until June 30. Trading in green coffee largely ceased during June while the trade awaited further price increases. On June 27 import quotas were suspended and

buying prices for green coffee were raised 2.075 cents per pound. This was expected to raise retail prices from 3 to 4 cents per pound. Black tea prices, unchanged throughout the war, rose 1.1 percent at wholesale in June, with the return of imports to private trading interests.

TEXTILES AND CLOTHING

Higher prices for textiles and clothing products in the second quarter reflected the OPA policy of allowing manufacturers to add their usual margins to current costs in order to encourage production.

Average prices for textile products in primary markets rose 1.2 percent from April to June, led by increases of 2.5 percent for clothing and 1.3 percent for cotton goods. From September 1939 to June 1946, prices for textile products as a group rose 52 percent, cotton goods having increased 98 percent, clothing 47 percent, woolen and worsted goods 34 percent, and hosiery and underwear over 20 percent.

Prices for hides and leather products averaged 2.2 percent higher than during the first 3 months of the year, with leather prices rising more than 6 percent, hides and skins over 3 percent, and shoes 1 percent. From VJ-day to the end of June prices for hides and leather products advanced 3 percent to a point nearly 25 percent above their level in September 1939.

The cost of clothing to moderate income families in 34 large cities advanced 2.7 percent during the second quarter of 1946 to a point more than 7 percent higher than the war level and more than 55 percent higher than in September 1939.

Price increases granted to manufacturers to encourage production of apparel in short supply resulted in higher prices to consumers for a number of clothing articles. Under MPR 580, retailers were permitted to add their usual percentage mark-up to manufacturers' prices computed on the new cost-plus-margin basis, and the cost to consumers of men's and boys' tailored clothing, shirts, shorts, and pajamas continued to advance. Ceilings for men's work clothing were revised upward at both manufacturers' and retail levels during the quarter, resulting in general price advances. Moderate increases were reported in the cost of women's clothing.

Although production of most types of clothing except pajamas was at a high level, the demand generally exceeded the supplies in retail stores. Merchants reported more frequent shipments of suits and shirts but stocks were sold out immediately when offered. Many stores sold articles in short supply only to established customers. Stocks of shorts continued to gain but supplies of work clothing showed little or no improvement.

Cotton goods prices advanced over 6 percent in primary markets during the second quarter as sales were made at the higher levels authorized by OPA in March and April for major constructions to offset the rising cost of raw cotton. Middling cotton averaged 8½ percent higher in 10 spot markets during the second quarter, advancing from 27 cents a pound in the early part of April to 30 cents by the end of June. Most of the rise, which established new 23-year highs, occurred after the third week in May. Prices of nylon, rayon, and other synthetic fibers remained stable throughout the period.

In May 1946 the U. S. Commodity Corporation permitted prices of imported raw goatskins to advance 25 percent to compete with foreign bidders. Removal of foreign hides and raw goatskins from import controls occurred so late (June 26, 1946) that its effect was not apparent during the second quarter. Leather prices rose nearly 6 percent as a result of industry-wide adjustments of 4½-year-old ceilings. On June 7, tanners of kid leather were granted a 16-percent increase in ceiling prices to compensate in a measure for the rising cost of raw stock, and producers of other types of leather were allowed a 6-percent rise above the level at which prices had been frozen since December 1941.

At the end of May, manufacturers of lower-priced shoes were granted advances in ceiling prices averaging about 11 percent in order to encourage production of inexpensive footwear. The cost of men's shoes to consumers in large cities advanced nearly 5 percent between April and June.

HOUSEFURNISHINGS

Retail costs of housefurnishings increased in each month of the second quarter of 1946, reaching a point in June 3.9 percent above the March level, while primary market prices advanced 3.3 percent.

Durable goods, including electric refrigerators, bedsprings, metal beds, oil stoves, and electric ironers, returned to the market at higher prices than when last available. Manufacturers' ceiling prices for radios were raised 8 percent and retailers' ceilings 5 percent. Production in most lines of consumer durable goods increased, with vacuum cleaners and washing machines passing prewar shipments.

Manufacturers' prices of wood household furniture were higher during the quarter. Supplies of bedroom furniture continued to be inadequate to meet demand. Dining-room suites were even more difficult to obtain. Statements from two important production centers indicated that output was greater despite shortages.

Retail costs of felted cotton mattresses increased during the period, as retailers passed on to consumers part of the increase granted to manufacturers on March 29, 1946. The lack of ticking and high carbon wire continued to hinder production.

Manufacturers' prices of cutlery and dinnerware increased during the quarter, reflecting OPA ceiling adjustments. Supplies of dinnerware, particularly of open stock, continued low.

Both wholesale and retail prices of floor coverings rose as manufacturers were granted additional industry-wide increases in April of 4½ percent for wool floor coverings and 6½ percent for hard-surface floor coverings to be passed along to consumers. Production in carpet mills continued to be blocked by the scarcity of unskilled labor in the yarn-making divisions. Manufacturers expected that widespread use of paper-backing yarns would offset the shortage of cotton and permit mills to continue production at a fairly high level. Production of hard-surface covering remained curtailed owing to continued shortage of linseed oil.

Average prices for pillow cases and sheets rose 2 percent at the primary-market level during the second quarter of 1946. Prices paid by consumers for sheets were higher both because of the increase in prices at the manufacturers' level and the scarcity of lower-quality,

shorter-length sheets. Demand remained far in excess of supply and the practice of allocating sheets to retailers and to consumers was continued.

Manufacturers' prices for window shades and oil cloth rose approximately 15 percent from April to June, when OPA granted industry-wide increases to compensate for higher labor and material costs and to stimulate production. Early in June ceiling prices on cotton blankets were revised upward under the provisions of the Bankhead Amendment to the Stabilization Extension Act of 1944.

HOUSING

Residential rents in 34 large cities combined advanced 0.1 percent during the second quarter of 1946, following a like advance during the first quarter of 1946. These are the largest advances for a comparable period since rent controls were established in 1942. Slight rises were reported in the three largest cities surveyed—New York, Chicago, and Los Angeles—while in Scranton, Pa., rents increased 6 percent from December 15, 1945, to May 15, 1946. The sharp increase in rents in Scranton occurred during a period free of rent controls when workers who migrated to other cities during the war and war veterans were returning in large numbers. In this city, where rents remained stable without rent control all during the war, Federal rent control was instituted on June 1, with the maximum rent date set at March 1, 1946.

Residential construction increased during the quarter. Work actually began on an estimated 196,000 privately financed nonfarm dwellings during the second quarter of 1946, as compared with 139,000 started during the previous quarter and 71,000 during the first 6 months of 1945. A drop in the number of dwellings started from May to June was reported, indicating somewhat greater concentration on building already under way. Because of the backlog of work, contractors were refusing to undertake additional construction. Building materials were still scarce.

Although tenants the country over expressed desire for the continuation of OPA rent control, there appeared to be increased pressure from realtors and landlords for an upward adjustment in rents. During the quarter realtors requested a 15-percent increase in residential rents.

FUELS AND LIGHTING MATERIALS

In June, composite average wholesale prices for fuels and lighting materials rose 2.0 percent above May levels, principally because of wage increases allowed coal miners. Prices were 3.3 percent above March 1946. Price increases for anthracite, occurring in the last week of June, were not fully reflected in the June index. Further advances can be anticipated, reflecting both the substantially higher levels authorized by OPA and the freight-rate increases of 6 to 8 cents per ton effective July 1.

Producers' ceiling prices for bituminous coal were raised 10 cents to $1.47 per ton or an average of 40½ cents per ton on June 21. Prices to consumers were expected to average 3 to 4 percent higher. The curtailment of work, beginning March 31, resulted in an esti-

mated loss of 80 million tons in coal production, and seriously reduced industrial, transportation, and utility operations. Shortages of coal were anticipated for the coming winter, despite record loadings in the first quarter.

The new wage agreement for anthracite miners was similar to that in the bituminous-coal industry. Effective June 25, an average ceiling price increase of 91 cents was allowed—$1.15 on broken, egg, stove, and nut, $1.00 on pea, $0.70 on buckwheat No. 1, and lesser amounts on the smaller sizes. These ceilings allowed producers the 1942 average profit margin of 19.9 cents per ton but required them to absorb 13½ cents per ton of the higher costs. All of the increase will be passed on to consumers.

The increase in coke price ceilings of $1.35 per ton, to cover increased soft-coal costs, was not reflected in the June indexes.

Gasoline supplies continued to diminish as peacetime driving exceeded most expectations, and below-ceiling prices had risen to near ceilings when the quarter closed. Fuel oil, particularly residual, continued in short supply, with prices at ceilings.

Consumers' prices for gas and electricity continued a downward trend during the second quarter, in contrast to the upward movement of other fuels. Domestic electricity rates were lowered in 13 of 51 cities priced in June. However, the diminished rate of industrial production during the quarter placed a larger proportion of industrial sales in higher rate brackets, thereby raising average realized prices.

MISCELLANEOUS GOODS AND SERVICES

Retail costs of miscellaneous goods and services increased 1.6 percent during the second quarter of 1946.

Scattered increases were noted in the cost of motion-picture admissions, beauty and barber shop services, and public transportation and prices of newspapers. Hospital rates continued to rise, reflecting reported increases in overhead costs, and several laundries reported advances in price owing to a rise in minimum wage scales.

An increase, authorized by OPA and amounting to 1 cent on two packages, occurred in cigarette prices.

During the second quarter of 1946 the cost of public liability insurance increased in most of the large cities as insurance companies returned to prewar rates following the end of gasoline rationing.

Increases occurred in prices of some industrial soaps and of yellow laundry bar soaps as a result of individual adjustments in OPA ceilings, allowed in part to encourage production.

Industrial Goods

Prices of industrial goods, generally stable during the war, continued the advance which had begun in late 1945. Increases were general and considerably larger than in recent years, as substantial adjustments of ceilings were allowed by OPA for individual commodities to relieve tight price-cost relationships.

Percentage changes in prices of the principal groups of industrial products are shown in table 3.

TABLE 3.—*Percent of Change in Prices of Industrial Goods in Primary Markets, in Specified Periods*

Commodity group	Percent of change				
	In last quarter, Mar. 1946 to June 1946	From end of war, Aug. 1945 to June 1946	In last year, June 1945 to June 1946	From hold-the-line order,[1] May 1943 to June 1946	From month before war in Europe, Aug. 1939 to June 1946
Metals and metal products	+3.5	+7.2	+7.2	+8.1	+20.4
Building materials	+4.0	+10.3	+10.6	+17.6	+45.0
Chemicals and allied products	+0.4	+1.2	+1.5	+1.7	+29.9
Miscellaneous commodities	+3.0	+3.9	+3.9	+7.2	+34.4

[1] The President's hold-the-line order was issued Apr. 8, 1943. The price rise which led to this order reached a peak in May, which is, therefore, used for this comparison.

Manufacturers' prices of building materials rose 4 percent, following an advance of 4.5 percent during the first quarter (the sharpest quarterly price increase since the fall of 1940) as OPA continued to grant higher ceilings for scarce materials needed for the expanded housing program. During the last year prices of building materials increased over 10 percent, more than in the previous 3½ years. As a result of price adjustments, bonus payments, and other aids to production, output of most building materials improved during the quarter.

Among other industrial goods, metals and metal products were up 3.5 percent and miscellaneous commodities 3.0 percent. Chemicals and allied products, which increased little more than 1 percent since the end of the war, averaged slightly higher during the quarter. With conversion to lower-volume peacetime production, machinery manufacturers generally were allowed sizable ceiling increases to cover higher costs. Increases in ceilings, the first since price controls were established, were allowed for primary copper and lead to cover approved wage increases.

Work stoppages brought iron and steel production in May to nearly 50 percent below the level of the previous year, and output of bituminous coal in April was negligible. Industrial production improved markedly in June but was not expected to reach capacity proportions before mid-summer. The Federal Reserve Board's index of industrial production, seasonally adjusted, reached 170 percent of the 1935–39 average, still more than 20 percent below June 1945.

BUILDING MATERIALS

During the quarter, primary market prices of building materials rose 4 per cent, on the average, bringing the advance for the first 6 months of 1946 to almost 9 percent. This increase was greater than in any comparable period during the war. Prices in June, 45 percent above the August 1939 average, were the highest since 1920. The urgency of the veterans' housing program and the higher costs of raw materials and labor resulted in pressure on OPA for higher prices from several directions, and a number of ceiling increases were allowed.

Production of most building materials showed continued improvement despite the May work stoppage. Particularly significant were the gains made in lumber, cast-iron radiation, clay sewer pipe, cement, brick, bathtubs, and sinks. Principal deterrents to the housing program were shortages of pig iron and hardwood flooring. The 400-million-dollar premium payment plans for increasing production of building materials became effective June 1, under which subsidies are paid by the Reconstruction Finance Corporation for all production above a base-period quota. At the end of the quarter premium plans were in effect for structural clay products, softwood, plywood, and gypsum liner, and plans were being developed for hardwood flooring and cast-iron soil pipe.

Wholesale prices of plumbing and heating equipment increased 11.5 percent as OPA granted substantial ceiling advances for a number of articles to cover higher labor and material costs and to encourage production. Despite improvement in production the backlog of orders still ranged from about 1 to 8 months.

Lumber prices in June were almost double their prewar average. Many incentive increases were authorized by OPA in this quarter to cover higher costs, particularly for items essential to the veterans' housing program such as Douglas fir boards, red cypress, and hardwoods. Price advances in the first two quarters of 1946 exceeded those in any comparable period since 1940. There were persistent reports of black markets, particularly in hardwood flooring, and of the disruption of normal distribution channels. An intensified enforcement campaign was undertaken by OPA and the Department of Justice. It was predicted by the industry, however, that the recent price advances would effect a return of normal distribution procedures. The demand for lumber to meet the requirements of the construction program and of the manufacture of furniture continued in excess of supply. Inventories were very low but production began to increase sharply in March and continued improving through the quarter. Lumber is now being cut at approximately the same rate as in 1941, according to CPA. In addition to price-incentive actions, the Government instituted other measures for increasing production which included building roads to isolated Government timber lands and the continuance of wartime overcutting.

Prices of brick and tile advanced 3.3 percent in the second quarter to approximately 10 percent above June 1945. Common and face brick production was about 90 percent of the 1941 average and structural clay tile was being produced at the 1941 level, but supplies still were insufficient. In order to obtain the necessary production, a premium payment of $5 per 1,000, effective June 1, was granted to brick and tile manufacturers who produce above quota. The building block industry is expected to increase capacity to meet requirements by the end of the year.

The cement supply situation on the whole was encouraging, but increased output of cement, estimated as high as 50 percent, will be needed by 1947 for the highway and housing programs.

The paint and paint materials group advanced in price 0.7 percent as a result of higher prices for butyl and ethyl acetates, lead pigments, and imported materials. Prices increased for asphalt roofing, millwork, copper sheets and wire, and lead and clay pipe.

In general the increases in prices at the primary market level were passed on to consumers. At the dealer to contractor level increases took place during the quarter in plumbing and heating equipment and lumber, with little price movement in paint, sand, gravel or ready-mixed concrete.

CHEMICALS AND ALLIED PRODUCTS

Although price increases for chemicals and allied products during the quarter averaged only 0.4 percent and the June 1946 level was only 1.2 percent above that for August 1945, there were large increases for a few commodities. Prices for quebracho extract advanced 12 percent, chestnut extract 23 percent, nitrocellulose 3 percent, blasting powder 10–14 percent, strychnine 108 percent, cottonseed meal 28 percent, phosphate rock 12.5 percent, and copper sulphate 13 percent. Shortages of certain coal-tar chemicals resulted from tne coal strike and asking prices were high with few sales in the resale market.

Chemical production during the quarter was adversely affected by shortages of raw materials, containers, the railroad stoppage, and strikes. Production of inorganic chemicals slackened, partly because of the scarcity of alkalies and metals, while stocks of organic chemicals, particularly those of coal-tar origin, declined. Allocation controls for potash and lead oxide were reestablished. The octane content of premium type gasoline was cut in order to conserve tetraethyl lead, and CPA disapproved producers' requests for higher export quotas for rosin.

Higher wage scales and increased raw-material costs caused industrial chemical prices to rise 1 percent between March and June. The price increases for some copper and lead salts reflected the higher metal prices and the advances in tanning materials owing to higher production costs. To offset higher prices for Hawaiian molasses, ceilings for ethyl alcohol produced on the west coast were advanced from 2.5 to 2.9 cents per gallon, and increases for eastern producers were pending. Because of declining production, plastics were given higher ceilings, and increases for alkalies and affiliated chemicals were requested because of increased production costs.

In June the index for drugs and pharmaceuticals was slightly lower than at the end of the war. Demand for boric acid and borates, glycerine, saccharine, thymol, and antipyrine continued to exceed supply. Glandular medicinals were scarce as slaughterers failed to recover byproducts from livestock. Domestic emetine hydrochloride was quoted at $53.50, compared with the February price of $44.50 per ounce. Prices for penicillin in ampules rose by 5 cents to 60 cents per 100,000 units, whereas production economies resulted in price cuts of 50 percent for tablet forms. Prices for several other products also advanced, notably rises of $2.25 per pound for resin podophyllum and of 95 cents per pound for theobromine.

Fertilizer materials advanced nearly 1 percent during the quarter. Higher prices for cottonseed meal and phosphate rock offset seasonal declines in potash quotations. Maximum West Coast port prices for sulphate of potash were raised from $3 to $39.25 per ton in order to assure an adequate supply to West Coast growers. Despite difficulties

in securing raw materials, sales of mixed fertilizers continued at record rates with inventories at the lowest levels of the year.

Output of arsenic, copper, and lead—raw materials for agricultural insecticides and fungicides—was low during the quarter. Supplies of pyrethrum were adequate, but demand for rotenone and nicotine sulphate exceeded supply. Ceilings for copper sulphate were advanced 65 cents per hundred pounds to cover increased wage and material costs, and importers' ceilings for rotenone were raised after a new buying agreement with foreign producers had been signed.

Scarcities of fats and oils continued to restrict trading. Supplies of drying oils were still inadequate, despite larger offerings of tung oil from China, and production of castor oil was curtailed because of strikes during May and June. Private trading was resumed for Philippine copra and crude coconut oil at prices identical with those of the Commodity Credit Corporation, while ceilings for babassu oil were raised nine-tenths of a cent to 12 cents a pound, following a trade agreement with Brazil which increased the purchase price for the kernels.

METALS AND MACHINERY

Price of metals and metal products as a group rose about 3.5 percent during the second quarter of 1946, primarily because of increases of 9 to 15 percent in prices of farm machinery, nonferrous metals, and plumbing and heating supplies. Most of the advance was concentrated in June when prices rose more than in any month since September 1941. These recent increases brought the total rise in prices of metal and metal products since the end of the war to over 7 percent, compared with 12 percent during the 6 years of the war.

Effective June 3, OPA raised the ceilings on copper from 12 to 14⅜ cents a pound and on lead from 6½ to 8¼ cents a pound to offset higher costs, primarily wage increases. These changes were the first advances since September 1940 for copper, and since January 1942 for lead. Zinc prices were not increased. As lead and zinc are mined together, zinc producers are expected to realize enough from the increased price of lead to absorb the higher costs. Payments under the premium-price plan were to continue unchanged.

The existence of a world shortage for copper, lead, and zinc was evidenced by rising prices in world markets. New RFC contracts for foreign lead were let at an advance of three-fourths of a cent per pound while copper quotations in foreign markets were 2 cents a pound higher during the quarter. Zinc importers ceased purchasing abroad as the foreign price rose above the domestic ceiling.

Prices of brass mill products, which were raised on April 1 to offset higher costs resulting from changes in the product mix, were advanced further during the quarter to compensate producers for approved wage increases and to cover high metal costs.

Production of steel was sharply curtailed during the quarter because of lack of coal and work stoppages. In order to expedite the distribution of the limited supplies of steel, CPA announced an "emergency distribution plan" under which manufacturers of farm machinery and critical products for the housing program would be given priority on steel mill schedules.

Higher raw material costs for steel making were indicated by increased prices for iron ore and pig iron and by demands of the scrap industry for higher ceiling prices. Requests for ceiling increases, ranging from $2.50 to $5 per ton, were made by dealers as the only means of increasing the limited supply of scrap. There were indications late in June of some withholding of scrap pending the outcome of price-control legislation.

Wholesale ceiling prices for all new passenger cars were increased by amounts ranging from $33 to $167 on May 22, to reflect higher costs of purchased materials. Dealers were allowed to pass on the dollar amount of the increase to the consumer.

OPA also revised ceilings for machinery to offset higher costs, with the decline in the volume of production following the end of the war, and to meet increased wage payments under the new wage-price policy. Price advances of 6 to 10 percent for construction, oil-field, farm, and electrical machinery and machine tools, which followed, were generally less than the amount of the ceiling increases.

PAPER

Despite record production induced by continuing demand for paper and paper products, higher wage and material costs caused price advances during the second quarter. In June average prices for paper and pulp were 1.7 percent above the March average and 5.8 percent above August 1945. Increases for wood pulp during the quarter totaled 9.6 percent and for paperboard, 1.5 percent.

Ceilings for many pulp and paper products were raised because of rising labor and material costs, particularly for low-priced but essential papers. Among the more important advances were those for wood pulp, book paper, ground wood specialty paper, paperboard, and certain converted paper products. Maximum prices for Fourdrinier Kraft liners and corrugating materials were advanced by amounts equivalent to $8 per ton; for solid woodpulp paperboard, $11 per ton; and for strawboard corrugating material, 7 cents per thousand square feet. New procedures whereby individual ceiling adjustments could be made and passed on to resellers were also established.

The estimated 1946 production of 18.5 million tons of paper and paperboard is approximately 4 percent more than the previous 1941 high. At the end of April, pulpwood inventories were 597,000 cords greater than for April 1945. June 1 paper and board mill inventories of wood pulp totaled 458,601 tons, the highest June 1 figure since 1943. May mill inventories of waste paper were at the high for the year and collections for the first 5 months of 1946 totaled over 3 million tons. By June 30 import controls on newsprint were lifted.

RUBBER AND RUBBER PRODUCTS

Prices of tires, rubber footwear, and certain mechanical rubber goods increased during the second quarter. Akron prices for scrap rubber, however, continued to decline because of poor demand and in June were approximately 10 percent below August 1945.

As a result of advancing labor and material costs, ceilings for tires used for either original equipment or replacement were raised by

OPA an average of 4½ and 3.3 percent of existing retail ceiling prices, respectively. Increases ranged from zero for truck tires, 10.00 inch and up, to 10 percent for certain odd truck tire sizes. During May, however, large truck tires were sold at 10 to 40 percent below retail ceilings in some cities because of large offerings by the War Assets Administration and dealers' attempts to reduce stocks of "war time" truck tires.

The tire and tube industry was maintaining record production. It was estimated that 69 million passenger-car tires would be produced in 1946 as compared with 50 million in 1941. On truck tires, production was almost up to requirements. Shortages of textiles, grains, bead wire, resins, and other material components were still serious. In addition, the stock pile of synthetic rubber, GR–S, which was 170,600 long tons on January 1, was down to about 75,000 long tons as of May 1, and inventory controls, abolished after VJ-day, were reestablished in June. Almost all wartime plants producing rubber from petroleum were running at full capacity to meet high demands for synthetics.

Index of Consumers' Prices in Large Cities, July 1946

Retail prices for consumer goods in large cities advanced 5.8 percent between mid-June and mid-July. Food prices rose 13.8 percent—the largest monthly change ever recorded; prices for other living essentials advanced 0.3 percent on the average; rents were not surveyed in July. The consumers' price index for moderate-income

[1] The "consumers' price index for moderate-income families in large cities," formerly known as the "cost of living index," measures average changes in retail prices of selected goods, rents and services, weighted by quantities bought by families of wage earners and moderate-income workers in large cities in 1934–36. The items priced for the index constituted about 70 percent of the expenditures of city families whose incomes averaged $1,524 in 1934–36.

The index only partially shows the wartime effects of changes in quality, availability of consumer goods, etc. The President's Committee on the Cost of Living has estimated that such factors, together with certain others not fully measured by the index, would add a maximum of 3 to 4 points to the index for large cities between January 1941 and September 1944. If small cities were included in the national average, another ½ point would be added. If account is also taken of continued deterioration of quality and disappearance of low-priced merchandise between September 1944 and September 1945, the over-all adjustment for the period January 1941 to September 1945 would total approximately 5 points. Merchandise of prewar quality is appearing again in retail stores and quantities of these goods are becoming large enough to price regularly, so that direct comparisons with prewar prices of such merchandise are made in computing the consumers' price index. If prices of prewar merchandise for most articles have been available for use in the index by the end of 1946, as now seems likely, most of this 5-point adjustment will no longer be applicable at that time.

The indexes in the accompanying tables are based on time-to-time changes in the cost of goods and services purchased by wage earners and lower-salaried workers in large cities. They do not indicate whether it costs more to live in one city than in another. The data relate to the 15th of each month, except those for January 1941, in tables 1 and 2. They were estimated for January 1, 1941, the base date for determining allowable cost-of-living wage increases under the Little Steel formula and under the wage-price policy of February 1946. January 1, 1941, indexes in tables 1 and 2 have been estimated by assuming an even rate of change from December 15, 1940, to the next pricing date. The President's "hold-the-line" order was issued April 8, 1943. The peak of the rise which led to that order was reached in May which is, therefore, used for this comparison.

Food prices are collected monthly in 56 cities during the first 4 days of the week which includes the Tuesday nearest the 15th of the month. Aggregate costs of foods in each city, weighted to represent food purchases of families of wage earners and lower-salaried workers, have been combined for the United States with the use of population weights. In March 1943, the number of cities included in the food index was increased from 51 to 56, and the number of foods from 54 to 61. Prices of clothing, housefurnishings, and miscellaneous goods and services are obtained in 34 large cities in March, June, September, and December. In intervening months, prices are collected in 21 of the 34 cities for a shorter list of goods and services. Rents are surveyed semiannually in most of the 34 cities (in March and September, or in June and December). In computing the all-items indexes for individual cities and the rent index for the average of large cities because of the general stability of average rents at present, the indexes are held constant in cities not surveyed during the current quarter. Prices for fuel, electricity, and ice are collected monthly in 34 large cities.

families in large cities for mid-July was 141.0 percent of the 1935–39 average, 9 percent higher than a year ago.

In mid-July after the temporary suspension of OPA controls and the removal of subsidies, consumers' prices were 5.6 percent below the all-time high of June 1920 and 43 percent higher than in August 1939. Food, clothing, and housefurnishings were 77, 57, and 56 percent higher, respectively, on July 15, 1946, than at the beginning of World War II.

Food prices jumped 13.8 percent between mid-June and mid-July; the largest monthly increase previous to this time was slightly more than 9 percent from March to April 1917. Prices of meats and dairy products advanced 29.6 and 21.2 percent, respectively; other important foods increased 3.7 percent on the average during the month. A part of this rise in meat prices may have occurred between mid-April and mid-June, when the meat shortage was so severe that the Bureau could not obtain an adequate number of meat prices and therefore the indexes for meats were held unchanged for a number of cities. The July index, based on the usual number of price quotations, reflects the correct level of prices and the full price change that occurred during the recent months of acute shortages. Prices of milk increased 2.5 cents per quart between mid-June and mid-July. Prices of foods on which subsidies had been paid prior to July 1 rose 18.8 percent on the average; prices for all other foods increased 4.6 percent during the month.

Clothing and housefurnishings prices rose only slightly (0.4 and 0.5 percent, respectively) between mid-June and mid-July. Cost of miscellaneous goods and services declined 0.1 percent during the month. Higher prices were reported for household supplies, beauty shop services, motion picture admissions, and newspapers in some cities. The Federal auto-use tax expired on June 30, 1946.

Anthracite and bituminous coal prices advanced almost 6 percent, reflecting higher ceilings allowed by OPA in June to meet higher production costs.

Rents were not surveyed in July, but will be surveyed in August and September. The July index does not reflect any changes in rents that may have occurred during the period when Federal rent control was not in effect.

The over-the-month advance in retail prices ranged from 4.1 percent in Seattle to 7.7 percent in Chicago. In Boston consumers' prices rose 7.6 percent, while in Houston prices increased 4.2 percent. Consumers' prices rose less rapidly on the West Coast than in other areas between June and July. By mid-July 1946 retail food prices were more than 80 percent higher than in August 1939 in 17 of the 51 cities surveyed during both dates; in all but 11 of these 51 cities, food prices had increased more than 70 percent. An increase from 1 to 2 percent in the New York City sales tax rate was reflected in the July index.

TABLE 1.—*Index of Consumers' Prices for Moderate-Income Families and Percent of Change, July 1946, Compared With Earlier Months*

Group	July 1946	June 1946	July 1945	August 1945	May 1943	January 1941	August 1939
	This month	Last month	Year ago	VJ-day	Hold-the-line order	Wage base debate	Month before war in Europe
	Indexes (1935–39=100)						
All items	141.0	133.3	129.4	129.3	125.1	100.8	98.6
Food	165.7	145.6	141.7	140.9	143.0	97.6	93.5
Clothing	157.9	157.2	145.9	146.4	127.9	101.2	100.3
Rent		108.5			108.0	105.0	104.3
Fuel, electricity, and ice	113.3	110.5	111.2	111.4	107.6	100.8	97.5
Gas and electricity	92.1	92.1	95.2	95.2	96.1	97.5	99.0
Other fuels and ice	133.7	128.4	126.7	127.2	118.7	104.0	96.3
Housefurnishings	156.9	156.1	145.6	146.0	125.1	100.2	100.6
Miscellaneous	127.8	127.9	124.3	124.5	115.3	101.8	100.4
	Percent of change to July 1946						
All items		+5.8	+9.0	+9.0	+12.7	+39.9	+43.0
Food		+13.8	+16.9	+17.6	+15.9	+69.8	+77.2
Clothing		+.4	+8.2	+7.9	+23.5	+56.0	+57.4
Rent [1]					+.5	+3.3	+4.0
Fuel, electricity, and ice		+2.5	+1.9	+1.7	+5.3	+12.4	+16.2
Gas and electricity		0	−3.3	−3.3	−4.2	−5.5	−7.0
Other fuels and ice		+4.1	+5.5	+5.1	+12.6	+28.6	+38.8
Housefurnishings		+.5	+7.8	+7.5	+25.4	+56.6	+56.0
Miscellaneous		−.1	+2.8	+2.7	+10.8	+25.5	+27.3

[1] Percent of change to June 1946.

TABLE 2.—*Percent of Increase in Consumers' Price Index From Specified Dates to July 1946, by Cities*

City	June 1946	July 1945	August 1945	May 1943	January 1941	August 1939
	Last month	Year ago	VJ-day	Hold-the-line order	Wage base date	Month before war in Europe
Average	5.8	9.0	9.0	12.7	39.9	43.0
Baltimore, Md	5.3	7.4	7.7	11.4	41.8	44.7
Birmingham, Ala	5.0	7.3	7.0	13.9	41.0	45.5
Boston, Mass	7.6	9.4	9.5	12.5	38.8	41.7
Buffalo, N. Y	5.1	7.8	7.7	8.2	36.8	41.5
Chicago, Ill	7.7	9.7	10.2	13.3	39.3	42.9
Cincinnati, Ohio	5.9	8.1	8.3	13.1	40.6	43.9
Cleveland, Ohio	5.9	8.7	8.8	12.3	40.9	43.7
Denver, Colo	4.6	7.8	7.9	10.8	37.8	39.8
Detroit, Mich	5.6	10.2	9.8	13.2	42.7	46.3
Houston, Tex	4.2	6.7	6.8	9.3	33.3	35.1
Kansas City, Mo	5.3	7.0	6.8	11.3	38.5	38.2
Los Angeles, Calif	4.3	8.7	8.3	12.8	38.4	41.2
Minneapolis, Minn	6.5	10.2	10.3	13.1	35.4	38.2
New York, N. Y	5.8	10.0	10.5	15.7	42.3	45.2
Philadelphia, Pa	5.6	9.0	9.0	12.1	41.0	43.0
Pittsburgh, Pa	5.9	9.2	9.6	14.3	41.0	45.0
St. Louis, Mo	6.3	9.8	9.4	12.5	38.1	42.2
San Francisco, Calif	4.4	7.7	8.6	12.3	41.4	44.9
Savannah, Ga	5.8	8.0	7.5	12.7	46.6	49.7
Seattle, Wash	4.1	7.5	7.3	10.1	39.7	42.2
Washington, D. C	4.9	8.8	8.8	13.4	40.4	42.3

Merchandise of prewar quality is beginning to appear again in substantial quantities in retail stores. As supplies of these goods become large enough to price regularly, direct comparisons with prewar prices of such merchandise are made in computing the consumers' price index. When prices of prewar quality merchandise for most articles are available for use in the index, a large part of the 5-point adjustment made in the autumn of 1945 by Executive order to take account of wartime changes in quality, availability of consumer goods, etc., will no longer be applicable. Since a considerable number of articles of prewar quality are now being reintroduced into the index, it appears likely that most of this adjustment will have been made by the end of this year.

TABLE 3.—*Percent of Change in Consumers' Price Index, June to July 1946, by Cities and Groups of Items*

City	All items	Food	Clothing	Fuel, electricity, and ice			House furnishings	Miscellaneous
				Total	Gas and electricity	Other fuels and ice		
Average	5.8	13.8	0.4	2.5	0	4.1	0.5	−0.1
Atlanta, Ga.		[1] 14.5		1.6	0	2.4		
Baltimore, Md.	5.3	11.9	.7	3.6	0	5.8	−.6	−.2
Birmingham, Ala.	5.0	12.8	.2	.1	0	.1	1.9	−.3
Boston, Mass.	7.6	[2] 17.3	.7	2.5	−.1	3.6	.4	−.1
Buffalo, N. Y.	5.1	12.6	.5	5.5	0	9.3	.5	−.5
Chicago, Ill.	7.7	[2] 17.9	−.2	1.9	0	3.1	−.5	.1
Cincinnati, Ohio	5.9	14.3	−.1	1.1	0	1.9	1.8	−.2
Cleveland, Ohio	5.9	14.7	.6	2.0	0	3.5	.3	−.2
Denver, Colo.	4.6	11.4	−.6	1.4	0	2.4	.1	.2
Detroit, Mich.	5.6	[2] 14.8	0	3.5	0	5.1	.2	−.5
Houston, Tex.	4.2	11.4	.8	0	0	0	.1	−.3
Indianapolis, Ind.		[2] 13.0		3.7	0	5.2		
Jacksonville, Fla.		[2] 13.1		.3	0	.5		
Kansas City, Mo.	5.3	[2] 14.5	.1	3.6	0	5.8	.1	−.5
Los Angeles, Calif.	4.3	10.6	.4	0	0	0	1.2	−.6
Manchester, N. H.		11.8		1.6	0	2.2		
Memphis, Tenn.		13.7		2.4	0	3.3		
Milwaukee, Wis.		16.0		2.9	−1.5	5.2		
Minneapolis, Minn.	6.5	17.0	−.2	3.5	0	5.0	−.4	.2
Mobile, Ala.		[2] 9.3		.4	0	.7		
New Orleans, La.		[2] 14.6		0	0	0		
New York, N. Y.	5.8	[2] 13.2	1.2	2.5	.6	4.4	1.2	.1
Norfolk, Va.		12.7		1.2	0	1.8		
Philadelphia, Pa.	5.6	12.1	−.1	4.2	0	6.4	.1	.6
Pittsburgh, Pa.	5.9	13.9	1.4	1.5	.1	3.2	.8	−.2
Portland, Maine.		16.2		2.3	−.2	3.3		
Portland, Oreg.		11.0		.1	.1	.1		
Richmond, Va.		[2] 11.3		1.3	0	1.8		
St. Louis, Mo.	6.3	15.1	.1	1.1	0	1.9	.4	−.6
San Francisco, Calif.	4.4	10.7	.6	.2	0	.8	.2	−.4
Savannah, Ga.	5.8	[1] 13.6	−.1	1.2	0	1.6	−1.5	.1
Scranton, Pa.		[2] 16.9		6.4	0	9.0		
Seattle, Wash.	4.1	[2] 10.2	−.3	.8	0	1.3	.4	−.4
Washington, D. C.	4.9	13.3	.7	3.5	0	5.3	.9	−.2

[1] Some of this advance may have occurred between mid-April and mid-June when meat indexes were held unchanged because of severe shortages.

[2] Some of this advance may have occurred between mid-May and mid-June when meat indexes were held unchanged because of severe shortages.

TABLE 4.—*Indexes of Consumers' Prices for Moderate-Income Families in Large Cities, 1935 to July 1946*

Year and month	Indexes (1935-39=100) of cost of—						
	All items	Food	Clothing	Rent	Fuel, electricity, and ice	House-furnishings	Miscellaneous
1935	98.1	100.4	96.8	94.2	100.7	94.8	98.1
1936	99.1	101.3	97.6	96.4	100.2	96.3	98.7
1937	102.7	105.3	102.8	100.9	100.2	104.3	101.0
1938	100.8	97.8	102.2	104.1	99.9	103.3	101.5
1939	99.4	95.2	100.5	104.3	99.0	101.3	100.7
1940	100.2	96.6	101.7	104.6	99.7	100.5	101.1
1941	105.2	105.5	106.3	106.2	102.2	107.3	104.0
1942	116.5	123.9	124.2	108.5	105.4	122.2	110.9
1943	123.6	138.0	129.7	108.0	107.7	125.6	115.8
1944	125.5	136.1	138.8	108.2	109.8	136.4	121.3
1945	128.4	139.1	145.9	108.3	110.3	145.8	124.1
1945:							
Jan. 15	127.1	137.3	143.0	(1)	109.7	143.6	123.3
Feb. 15	126.9	136.5	143.3	(1)	110.0	144.0	123.4
Mar. 15	126.8	135.9	143.7	108.3	110.0	144.5	123.6
Apr. 15	127.1	136.6	144.1	(1)	109.8	144.9	123.8
May 15	128.1	138.8	144.6	(1)	110.0	145.4	123.9
June 15	129.0	141.1	145.4	108.3	110.0	145.8	124.0
July 15	129.4	141.7	145.9	(1)	111.2	145.6	124.3
Aug. 15	129.3	140.9	146.4	(1)	111.4	146.0	124.5
Sept. 15	128.9	139.4	148.2	108.3	110.7	146.8	124.6
Oct. 15	128.9	139.3	148.5	(1)	110.5	146.9	124.7
Nov. 15	129.3	140.1	148.7	(1)	110.1	147.6	124.6
Dec. 15	129.9	141.4	149.4	108.3	110.3	148.3	124.8
1946:							
Jan. 15	129.9	141.0	149.7	(1)	110.8	148.8	125.4
Feb. 15	129.6	139.6	150.5	(1)	111.0	149.7	125.6
Mar. 15	130.2	140.1	153.1	108.4	110.5	150.2	125.9
Apr. 15	131.1	141.7	154.5	(1)	110.4	152.0	126.7
May 15	131.7	142.6	155.7	(1)	110.3	153.7	127.2
June 15	133.3	145.6	157.2	108.5	110.5	156.1	127.9
July 15	141.0	165.7	157.9	(1)	113.3	156.9	127.8

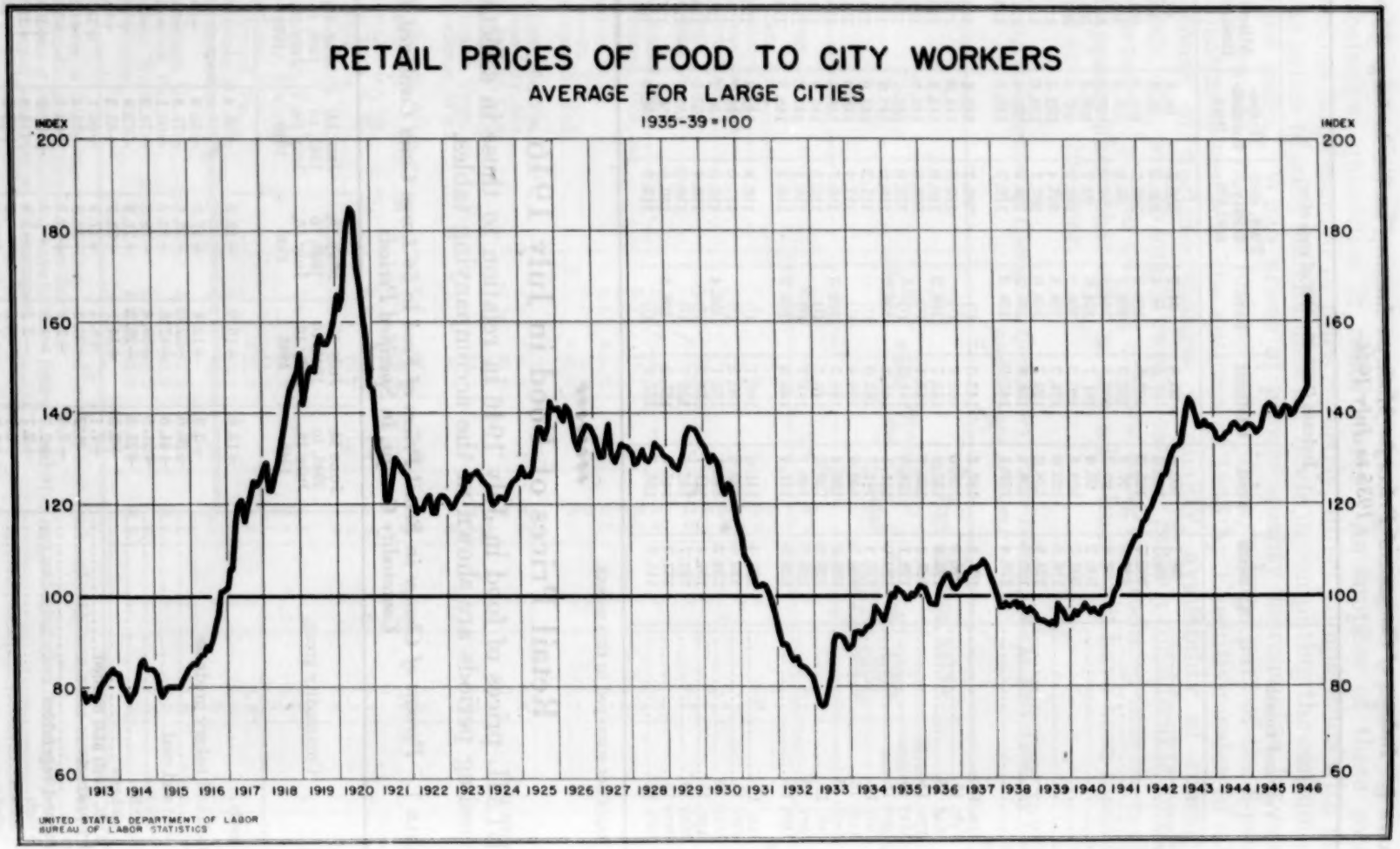
[1] Rents not surveyed in this month.

Retail Prices of Food in July 1946

RETAIL prices of food in July 1946 in relation to those in selected preceding periods are shown in the accompanying tables.

TABLE 1.—*Percent of Change in Retail Prices of Food in 56 Large Cities Combined, by Commodity Groups, in Specified Periods*

Commodity group	June 18, 1946, to July 16, 1946	July 17, 1945, to July 16, 1946	May 18, 1943, to July 16, 1946	Jan. 14, 1941, to July 16, 1946	Aug. 15, 1939, to July 16, 1946
All foods	+13.8	+16.9	+15.9	+69.4	+77.2
Cereals and bakery products	+3.3	+15.6	+17.2	+32.9	+35.0
Meats	+29.6	+32.0	+25.6	+71.8	+81.5
Beef and veal	+44.6	+47.8	+33.5	+60.1	+75.9
Pork	+31.5	+33.4	+19.8	+74.6	+70.8
Lamb	+23.5	+26.2	+21.2	+73.9	+73.7
Chickens	+9.5	+14.1	+20.7	+83.3	+88.4
Fish, fresh and canned	+7.1	+8.2	+17.3	+98.1	+136.1
Dairy products	+21.2	+34.3	+30.8	+70.4	+92.4
Eggs	+9.4	+2.4	+13.3	+65.3	+77.5
Fruits and vegetables	+2.7	−1.8	−1.3	+101.9	+103.9
Fresh	+2.7	−2.2	−1.8	+116.4	+117.8
Canned	+2.7	+.5	−.2	+43.2	+42.9
Dried	+2.0	+4.1	+11.3	+76.6	+94.8
Beverages	+.5	+1.0	+1.2	+38.6	+32.8
Fats and oils	+9.1	+11.2	+9.2	+71.7	+63.2
Sugar and sweets	+1.7	+9.5	+8.5	+45.3	+44.9


RETAIL PRICES OF FOOD TO CITY WORKERS
AVERAGE FOR LARGE CITIES
1935-39=100
INDEX
200
180
160
140
120
100
80
60
1913 1914 1915 1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1935 1936 1937 1938 1939 1940 1941 1942 1943 1944 1945 1946
UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

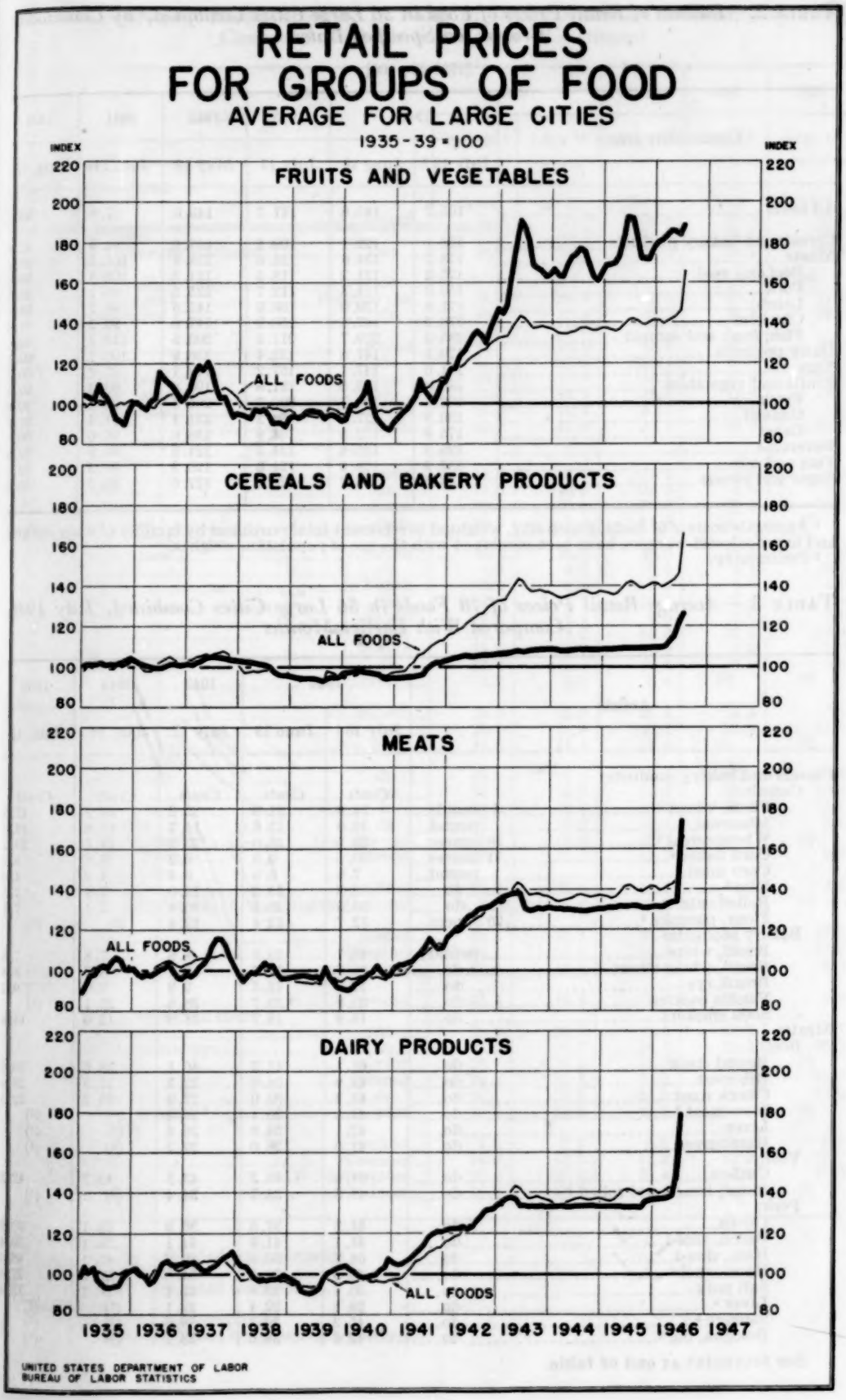

RETAIL PRICES
FOR GROUPS OF FOOD
AVERAGE FOR LARGE CITIES
1935-39 = 100
INDEX
FRUITS AND VEGETABLES
ALL FOODS
CEREALS AND BAKERY PRODUCTS
ALL FOODS
MEATS
ALL FOODS
DAIRY PRODUCTS
ALL FOODS
220
200
180
160
140
120
100
80
1935 1936 1937 1938 1939 1940 1941 1942 1943 1944 1945 1946 1947
UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

TABLE 2.—*Indexes of Retail Prices of Food in 56 Large Cities Combined,*[1] *by Commodity Groups, on Specified Dates*

[1935-39=100]

Commodity group	1946		1945	1943	1941	1939
	July 16[2]	June 18	July 17	May 18	Jan. 14	Aug. 15
All foods	165.7	145.6	141.7	143.0	97.8	93.5
Cereals and bakery products	126.1	122.1	109.1	107.6	94.9	93.4
Meats	173.7	134.0	131.6	138.3	101.1	95.7
Beef and veal	175.2	121.2	118.5	131.2	109.4	99.6
Pork	150.3	114.3	112.7	125.5	86.1	88.0
Lamb	171.6	139.0	136.0	141.6	98.7	98.8
Chickens	178.2	162.8	156.2	147.6	97.2	94.6
Fish, fresh and canned	235.2	219.7	217.3	200.5	118.7	99.6
Dairy products	179.1	147.8	133.4	136.9	105.1	93.1
Eggs	161.0	147.1	157.2	142.1	97.4	90.7
Fruits and vegetables	188.4	183.5	191.8	190.8	93.3	92.4
Fresh	202.1	196.7	206.7	205.8	93.4	92.8
Canned	130.9	127.5	130.2	131.1	91.4	91.6
Dried	175.9	172.5	168.9	158.0	99.6	90.3
Beverages	126.0	125.4	124.7	124.5	90.9	94.9
Fats and oils	137.9	126.4	124.0	126.3	80.3	84.5
Sugar and sweets	138.5	136.2	126.5	127.6	95.3	95.6

[1] Aggregate costs of 61 foods in each city, weighted to represent total purchases by families of wage earners and lower-salaried workers, have been combined with the use of population weights.
[2] Preliminary.

TABLE 3.—*Average Retail Prices of 78 Foods in 56 Large Cities Combined, July 1946, Compared With Earlier Months*

Article	1946		1945	1941	1939
	July 16[1]	June 18	July 17	Jan. 14	Aug. 15
Cereals and bakery products:					
Cereals:	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*
Flour, wheat[2] 5 pounds	34.9	31.9	32.2	20.7	17.9
Macaroni pound	16.0	15.6	15.7	13.8	14.0
Wheat cereal[3] 28 ounces	23.5	23.0	23.3	23.5	24.2
Corn flakes[4] 11 ounces	10.5	9.3	9.2	9.8	9.7
Corn meal pound	7.8	6.8	6.4	4.2	4.0
Rice[3] do	13.8	13.2	13.0	7.9	7.5
Rolled oats do	10.5	10.5	10.4	7.1	7.1
Flour, pancake[3] 20 ounces	12.7	12.4	12.4	(5)	(5)
Bakery products:					
Bread, white pound	10.7	10.6	8.8	7.8	7.8
Bread, whole wheat do	11.7	11.7	9.7	8.7	8.8
Bread, rye do	12.6	12.5	9.9	9.0	9.2
Vanilla cookies do	30.8	[6] 29.7	28.8	25.1	(5)
Soda crackers do	18.8	18.7	18.9	15.0	14.8
Meats:					
Beef:					
Round steak do	61.1	41.7	40.1	38.6	36.4
Rib roast do	49.9	34.0	32.3	31.5	28.9
Chuck roast do	43.3	29.0	27.9	25.2	22.5
Stew meat[3] do	41.8	30.1	29.4	(5)	(5)
Liver do	47.1	38.8	36.6	(5)	(5)
Hamburger do	41.0	28.0	27.2	(5)	(5)
Veal:					
Cutlets do	64.4	45.2	43.5	45.2	42.5
Roast, boned and rolled[3] do	48.8	35.7	34.4	(5)	(5)
Pork:					
Chops do	51.2	37.5	36.9	29.1	30.9
Bacon, sliced do	51.1	41.8	41.1	30.1	30.4
Ham, sliced do	64.8	50.8	49.2	45.1	46.4
Ham, whole do	48.5	36.2	34.6	26.2	27.4
Salt pork do	30.1	22.8	22.1	16.7	15.4
Liver[3] do	29.1	22.4	22.1	(5)	(5)
Sausage[3] do	46.2	39.3	38.6	(5)	(5)
Bologna, big[3] do	42.6	34.6	33.7	(5)	(5)

See footnotes at end of table.

TABLE 3.—*Average Retail Prices of 78 Foods in 56 Large Cities Combined, July 1946, Compared With Earlier Months*—Continued

Article		1946		1945	1941	1939
		July 16 [1]	June 18	July 17	Jan. 14	Aug. 15
Meats—Continued						
Lamb:		*Cents*	*Cents*	*Cents*	*Cents*	*Cents*
Leg	pound	50.5	40.9	39.8	27.8	27.6
Rib chops	do	57.5	[r] 46.5	45.2	35.0	36.7
Poultry: Roasting chickens	do	54.0	49.3	47.1	31.1	30.9
Fish:						
Fish (fresh, frozen)	do	([6])	([6])	([6])	([6])	([6])
Salmon, pink	16-ounce can	25.4	24.5	23.6	15.7	12.8
Salmon, red [2]	do	43.8	43.1	40.2	26.4	23.1
Dairy products:						
Butter	pound	80.5	61.0	49.9	38.0	30.7
Cheese	do	51.2	41.3	35.4	27.0	24.7
Milk, fresh (delivered)	quart	18.9	16.4	15.6	13.0	12.0
Milk, fresh (store)	do	17.9	15.5	14.5	11.9	11.0
Milk, evaporated	14½-ounce can	11.6	10.4	10.1	7.1	6.7
Eggs: Eggs, fresh	dozen	55.8	51.0	55.3	34.9	32.0
Fruits and vegetables:						
Fresh fruits:						
Apples	pound	14.0	14.7	12.5	5.2	4.4
Bananas	do	11.9	10.9	10.5	6.6	6.1
Oranges	dozen	57.7	50.9	52.7	27.3	31.5
Grapefruit [3]	each	10.0	9.5	11.3	([5])	([5])
Fresh vegetables:						
Beans, green	pound	18.3	16.7	24.0	14.0	7.2
Cabbage	do	4.8	5.5	6.6	3.4	3.9
Carrots	bunch	9.2	9.1	9.2	6.0	4.6
Lettuce	head	11.6	11.7	12.3	8.4	8.4
Onions	pound	7.0	8.4	9.3	3.6	3.6
Potatoes	15 pounds	76.4	75.2	81.9	29.2	34.4
Spinach	pound	12.0	9.7	11.9	7.3	7.8
Sweetpotatoes	do	13.4	12.4	11.5	5.0	5.5
Beets [3]	bunch	7.7	9.6	9.0	([5])	([5])
Canned fruits:						
Peaches	No. 2½ can	29.5	27.7	27.4	16.5	17.1
Pineapple	do	26.8	25.6	26.9	20.9	21.0
Grapefruit juice	No. 2 can	14.8	14.4	14.4	([5])	([5])
Canned vegetables:						
Beans, green	do	13.9	13.7	13.1	10.0	10.0
Corn	do	14.9	14.8	14.8	10.7	10.4
Peas	do	14.0	13.7	13.2	13.2	13.6
Tomatoes	do	12.7	12.5	12.2	8.4	8.6
Soup, vegetable [3]	11-ounce can	13.4	13.4	13.4	([5])	([5])
Dried fruits: Prunes	pound	17.9	17.5	17.7	9.6	8.8
Dried vegetables:						
Navy beans	do	12.7	12.5	11.5	6.5	5.8
Soup, dehydrated, chicken noodle [3]	ounce	3.9	3.9	3.8	([5])	([5])
Beverages:						
Coffee	pound	30.8	30.7	30.4	20.7	22.3
Tea	¼ pound	24.1	24.1	24.2	17.6	17.2
Cocoa [3]	½ pound	10.5	10.4	10.4	9.1	8.6
Fats and oils:						
Lard	pound	23.4	18.8	18.7	9.3	9.9
Shortening other than lard:						
In cartons	do	20.9	20.2	20.0	11.3	11.7
In other containers	do	25.2	24.7	24.5	18.3	20.2
Salad dressing	pint	28.7	[r] 28.2	24.3	20.1	([5])
Oleomargarine	pound	25.2	24.1	23.8	15.6	16.5
Peanut butter	do	34.1	33.8	28.5	17.9	17.9
Oil, cooking or salad [3]	pint	31.4	30.4	30.4	([5])	([5])
Sugar and sweets:						
Sugar	pound	7.4	7.3	6.7	5.1	5.2
Corn sirup	24 ounces	16.0	15.7	15.8	13.6	13.7
Molasses [3] [7]	16 fluid ounces	20.4	20.4	20.4	17.3	17.6
Apple butter [3]	16 ounces	15.8	15.6	14.1	([5])	([5])

[1] Preliminary.
[2] Price formerly published for 10 pounds.
[3] Not included in index.
[4] Price formerly published for 8 ounces.
[5] Not priced.
[6] Composite price not computed.
[7] Price formerly published for 18 ounces avoirdupois.
[r] Revised.

TABLE 4.—*Indexes of Average Retail Prices of All Foods, by Cities,*[1] *on Specified Dates*

[1935–39=100]

City	1946		1945	1941	1939
	July 16 [2]	June 18	July 17	Jan. 14	Aug. 15
United States	165.7	145.6	141.7	97.8	93.5
Atlanta, Ga.	161.5	141.0	142.1	94.3	92.5
Baltimore, Md.	170.5	152.4	150.4	97.9	94.7
Birmingham, Ala.	166.6	147.7	146.9	96.0	90.7
Boston, Mass.	161.9	138.0	136.6	95.2	93.5
Bridgeport, Conn.	158.5	139.1	138.7	96.5	93.2
Buffalo, N. Y.	157.9	140.2	138.9	100.2	94.5
Butte, Mont.	154.4	139.7	138.7	98.7	94.1
Cedar Rapids, Iowa [3]	171.8	148.2	145.4	95.9	----
Charleston, S. C.	161.9	140.8	139.4	95.9	95.1
Chicago, Ill.	168.4	142.8	140.7	98.2	92.3
Cincinnati, Ohio	161.6	141.4	140.8	96.5	90.4
Cleveland, Ohio	171.3	149.3	145.8	99.2	93.6
Columbus, Ohio	153.1	136.4	133.4	93.4	88.1
Dallas, Tex.	162.7	142.4	137.7	92.6	91.7
Denver, Colo.	161.8	145.3	139.8	94.8	92.7
Detroit, Mich.	166.9	145.4	138.3	97.0	90.6
Fall River, Mass.	158.2	138.1	134.8	97.5	95.4
Houston, Tex.	160.4	144.0	141.6	102.6	97.8
Indianapolis, Ind.	159.9	141.5	136.8	98.2	90.7
Jackson, Miss. [3]	169.1	150.6	149.4	105.3	---- ----
Jacksonville, Fla.	170.6	150.8	152.4	98.8	95.8
Kansas City, Mo.	154.4	134.8	135.0	92.4	91.5
Knoxville, Tenn. [3]	186.4	165.6	161.1	97.1	----
Little Rock, Ark.	159.3	139.1	141.0	95.6	94.0
Los Angeles, Calif.	171.2	154.8	145.2	101.8	94.6
Louisville, Ky.	155.2	135.6	134.3	95.5	92.1
Manchester, N. H.	161.5	144.4	139.4	96.6	94.9
Memphis, Tenn.	174.6	153.6	150.7	94.2	89.7
Milwaukee, Wis.	167.4	144.3	140.6	95.9	91.1
Minneapolis, Minn.	160.9	137.5	133.7	99.0	95.0
Mobile, Ala.	163.8	149.8	151.1	97.9	95.5
Newark, N. J.	164.9	147.9	145.1	98.8	95.6
New Haven, Conn.	160.6	140.4	139.0	95.7	93.7
New Orleans, La.	180.6	157.6	157.6	101.9	97.6
New York, N. Y.	168.9	149.2	143.8	99.5	95.8
Norfolk, Va.	164.5	146.0	145.3	95.8	93.6
Omaha, Nebr.	161.4	139.5	133.5	97.9	92.3
Peoria, Ill.	172.2	151.3	144.8	99.0	93.4
Philadelphia, Pa.	160.8	143.5	139.2	95.0	93.0
Pittsburgh, Pa.	167.6	147.1	142.4	98.0	92.5
Portland, Maine	160.8	138.4	136.4	95.3	95.9
Portland, Oreg.	175.8	158.4	152.5	101.7	96.1
Providence, R. I.	165.3	144.9	141.9	96.3	93.7
Richmond, Va.	154.0	138.4	137.5	93.7	92.2
Rochester, N. Y.	160.6	142.5	138.2	99.9	92.3
St. Louis, Mo.	169.7	147.4	142.9	99.2	93.8
St. Paul, Minn.	159.0	137.3	132.2	98.6	94.3
Salt Lake City, Utah	166.4	151.7	144.8	97.5	94.6
San Francisco, Calif.	172.1	155.5	150.1	99.6	93.8
Savannah, Ga.	180.1	158.5	156.6	100.5	96.7
Scranton, Pa.	168.4	144.0	142.6	97.5	92.1
Seattle, Wash.	167.1	151.6	145.7	101.0	94.5
Springfield, Ill.	174.1	150.1	144.7	96.2	94.1
Washington, D. C.	164.8	145.5	142.2	97.7	94.1
Wichita, Kans. [3]	174.8	154.4	150.9	97.2	----
Winston-Salem, N. C. [3]	164.6	145.3	143.1	93.7	----

[1] Aggregate costs of 61 foods in each city, weighted to represent total purchases by wage earners and low-salaried workers, have been combined for the United States with the use of population weights.

[2] Preliminary.

[3] June 1940=100.

TABLE 5.—*Indexes of Retail Food Prices in 56 Large Cities Combined, 1913 to July 1946*

[1935-39=100]

Year	All-foods index	Year	All-foods index	Year and month	All-foods index	Year and month	All-foods index
1913	79.9	1928	130.8	1943	138.0	*1945*	
1914	81.8	1929	132.5	1944	136.1		
1915	80.9	1930	126.0	1945	139.1	November	140.1
1916	90.8	1931	103.9			December	141.4
1917	116.9	1932	86.5	*1945*			
1918	134.4	1933	84.1			*1946*	
1919	149.8	1934	93.7	January	137.3		
				February	136.5	January	141.0
1920	168.8	1935	100.4	March	135.9	February	139.6
1921	128.3	1936	101.3	April	136.6	March	140.1
1922	119.9	1937	105.3	May	138.8	April	141.7
1923	124.0	1938	97.8	June	141.1	May	142.6
1924	122.8	1939	95.2	July	141.7	June	145.6
1925	132.9	1940	96.6	August	140.9	July	165.7
1926	137.4	1941	105.5	September	139.4		
1927	132.3	1942	123.9	October	139.3		

Electricity and Gas, Price Changes in Domestic Bills, January–June 1946

Electricity Rates

DOMESTIC rates for electricity were lowered during the first half of 1946 in 13 of the 51 cities in which the Bureau of Labor Statistics obtains this information. This was due in part to renewed pressure by local groups for lower utility rates as a result of increases in the net earnings of many utilities following the elimination of excess profits taxes late in 1945. The higher cost of fuel purchased by utilities caused small increases in net monthly bills in two cities. These advances occurred before the substantial rise in coal costs announced in June and before the termination and reestablishment of OPA.

On June 15, 1946, the composite price index for domestic consumption of 25 kilowatt-hours of electricity in 51 cities was 67.6 (1923–25=100), compared with 68.2 on March 15, 1946, and with 69.5 on December 15, 1945. For consumption of 100 kilowatt-hours the composite index for June was 62.5, compared with 62.7 in March, and with 63.5 in December. These changes represent a relatively sharp decline for 6 months, almost 3 percent for 25 kilowatt-hours and nearly 2½ percent for 100 kilowatt-hours. These 6-month declines are greater than any which occurred in the previous 5 years.

Bills for three specified quantities of domestic electricity consumption are shown in table 1, by city, before and after the rate changes which took place during the 6 months ending June 15, 1946.

TABLE 1.—*Changes in Domestic Electricity Bills, January–June 1946, by City*

City	Effective date of new rates	Domestic net monthly bill for—					
		25 kilowatt-hours		100 kilowatt-hours		250 kilowatt-hours	
		Before	After	Before	After	Before	After
Boston	Mar. 1, 1946	$1.55	$1.45	$4.90	$4.80	$9.40	$9.30
Chicago	Mar. 1, 1946	1.34	1.21	3.65	3.35	6.65	6.35
Detroit	Jan. 1, 1946	1.30	1.20	3.38	3.29	6.86	6.77
Fall River	June 1, 1946	1.42	1.35	4.81	4.70	8.91	8.85
Indianapolis	June 1, 1946	1.25	1.12	3.85	3.55	6.95	6.65
Louisville	Feb. 15, 1946	.90	.90	3.09	2.83	6.18	5.92
Manchester	Mar. 1, 1946	2.00	1.65	5.00	4.54	8.00	7.54
Milwaukee	Dec. 31, 1945	1.35	1.32	3.22	3.18	6.10	5.92
Minneapolis	Apr. 1, 1946	1.19	[1] 1.00	3.56	3.32	6.65	6.41
St. Louis—Company 1	May 1, 1946	1.21	1.07	3.20	3.10	6.35	6.25
St. Paul	Apr. 1, 1946	1.25	1.00	3.75	3.50	7.00	6.75
San Francisco	Apr. 15, 1946	1.15	1.12	2.92	2.82	5.42	5.02
Savannah	Apr. 1, 1946	1.22	1.18	3.90	3.88	6.65	6.63

[1] Minimum bill.

Gas Rates

During the first half of 1946, domestic rates for gas reflected the same influences as domestic rates of electricity. In addition, the rates of natural gas distributors continued to reflect reductions instituted by their pipe-line suppliers. Changes in fuel costs or in the heating content of gas resulted in changes in bills in 11 cities for the 6-month period. Two of these changes were sizable: in Providence, rates were increased almost 7 percent to cover increased fuel costs; and in Fall River, rates were decreased over 2 percent because of a decline in fuel costs. Detroit domestic bills, which were subject to a special discount in December, returned in January to prediscount levels.

In New York City, the usual seasonal rate reductions for gas were effective in May, substantially reducing the composite 50-city index. Large natural-gas rate decreases took place in Peoria, Springfield (Ill.), and San Francisco; and small decreases occurred in Chicago and Minneapolis, where mixed gas is distributed.

The composite index for bills for domestic consumption of 10.6 therms in 50 cities moved downward from 95.6 (1923–25=100) on December 15, 1945, to 95.1 on March 15, 1946. The further decline to 94.4 on June 15 was largely due to the seasonal movement in New York. The index for bills for 30.6 therms declined from 80.3 to 80.0 from December to March and was 77.2 in June.

Bills for four specified quantities of gas consumption are shown in table 2 for each of these six cities, before and after the new rate changes.

TABLE 2.—*Changes in Domestic Gas Bills, January–June 1946, by City*

City	Effective date of new rates	Domestic net monthly bill for—							
		10.6 therms		19.6 therms		30.6 therms		40.6 therms	
		Before	After	Before	After	Before	After	Before	After
Chicago	Jan. 15, 1946	$1.85	$1.79	$2.93	$2.87	$3.72	$3.66	$4.42	$4.36
	May 1, 1946	1.79	1.65	2.87	2.68	3.66	3.47	4.36	4.17
Minneapolis	Jan. 1, 1946	1.61	1.60	2.26	2.24	3.01	2.98	3.65	3.60
New York	[1]	2.28	2.28	4.22	3.96	6.59	5.51	8.73	6.91
Peoria	Jan. 1, 1946	2.12	1.74	3.64	2.71	4.67	3.81	5.57	4.81
San Francisco	Feb. 28, 1946	1.00	.90	1.38	1.21	1.83	1.59	2.21	1.93
Springfield (Ill.)	Jan. 1, 1946	1.91	1.74	3.36	2.71	4.47	3.81	5.37	4.81

[1] Seasonal rate reductions effective annually, May through October.

Wholesale Prices in July 1946

PRICES in primary markets advanced 10.1 percent between June and July 1946 as prices of agricultural products and some industrial commodities rose sharply following suspension of OPA controls and the removal of subsidies on July 1. This rise brought the wholesale price [1] index of the Bureau of Labor Statistics to 124.3 percent of the 1926 average, the highest level since November 1920—17.6 percent above August 1945 and 65.7 percent higher than at the beginning of the war. The increase during the month is the largest monthly advance in the 57 years during which the Bureau has been computing this index. Reinstitution of OPA on July 26 came too late in the month to affect the July averages substantially.

Temporary suspension of OPA and the removal of subsidies at the end of June led to immediate price increases for agricultural commodities, other scarce articles in heavy demand, and certain import commodities. Prices of these commodities generally were maintained at high levels throughout the period of OPA suspension, although there was some recession near the end of the month from the early July peaks. For most industrial commodities, manufacturers held prices at earlier ceilings or at somewhat higher levels already under consideration by OPA.

Farm products and food prices increased 12.1 percent and 24.2 percent, respectively, and hides and leather products increased 15.4 percent during the month. The largest advances in subgroup indexes occurred for meats (54.3 percent), hides and skins (39.3 percent), and dairy products and cereal products (23 percent each). Increases for the other major commodity groups ranged from 1 to 4 percent. Raw materials as a group increased 10.5 percent, semimanufactured articles 4.3 percent, and manufactured products 10.8 percent.

Increases for farm products were led by advances of 19.5 percent for grains and 18.6 percent for livestock and poultry. Corn quotations jumped 50 percent despite greatly increased shipments, reflecting the continued heavy demand for feed. Barley was up 12.7 percent and wheat averaged 9.7 percent higher, with the largest increases for spring wheat, which was just coming to market. Quotations for oats were slightly lower as corn supplies improved, and rye quotations were down. Hog quotations were up 27.6 percent, steers 19.5 percent, and sheep 10.7 percent. There were smaller increases for live poultry. Fluid milk prices rose slightly—more than enough to compensate for elimination of the subsidy. Cotton rose from an average of 29 cents per pound in June to 33 cents in July. Fruits and vegetables declined in price over the month and eggs were slightly lower, reflecting reduced demand as meat supplies improved.

Meat prices rose 54.3 percent under the pressure of heavy demand and higher livestock prices. There were increases ranging from 35 percent for veal carcass at Chicago to 78 percent for beef carcass at New York. Poultry prices were up about 10 percent. Butter quota-

[1] The Bureau of Labor Statistics wholesale price data, for the most part, represent prices in primary markets. In general, the prices are those charged by manufacturers or producers or those prevailing on commodity exchanges. The monthly index is calculated from a monthly average of one-day-a-week prices. It should not be compared directly with the weekly wholesale price index, which is designed as an indicator of week-to-week changes. Indexes for the last 2 months are preliminary.

tions averaged 35 percent higher, and there were sizable increases for cheese and canned milk. Among cereal products, wheat flour was up 44 percent, as a result of removal of the subsidy, higher grain costs, and the July 1 freight-rate increase. Bread prices rose 12 to 15 percent in different markets as the result of OPA ceiling increases in June and higher flour costs. Some fats and oils, still in short supply, such as lard, edible tallow, and oleo oil, were considerably higher. Higher prices were also reported for coffee, corn sirup, and black pepper.

Quotations for hides and skins advanced sharply in early June in response to strong demand in domestic and foreign markets but were rolled back after restoration of OPA. Leather prices rose 20 percent. Manufacturers' prices of shoes averaged 8.4 percent higher in July as the result of an OPA ceiling adjustment in late June for low-cost styles, which was extended in late July to certain other shoes.

Advances of 3.7 percent for textile products and 1.4 percent for housefurnishings were caused largely by higher prices of cotton goods resulting from increased ceilings prior to June 30 under the Bankhead amendment to the Stabilization Extension Act of 1944 and higher costs of raw cotton in July after suspension of controls. Raw jute and hemp also were higher than in June. There were increases for a number of consumer durable goods, including sewing machines, stoves, and electric refrigerators, reflecting OPA ceiling adjustments prior to June 30.

Anthracite and bituminous coal quotations increased 7.9 percent and 2.5 percent, respectively, showing further effects of OPA ceiling increases in June. Coke prices were up 10.5 percent. Petroleum and petroleum products rose above former ceilings because of continued good demand.

Prices of lead and zinc increased above former ceilings and there were resultant increases for some of their products. Iron and steel rose 1.1 percent as a group with higher prices for a number of commodities (including pig iron, iron ore, cutting tools, builders' supplies, and cast-iron soil pipe), resulting from OPA ceiling increases prior to June 30 or late in July to cover higher costs or to encourage production.

Prices of some paint materials rose substantially because of tight supplies or higher costs of raw materials. Carbon black was up 55 percent, shellac more than 65 percent, and litharge 33 percent. Other pigments, linseed oil, and naval stores also were higher. There were price increases, reflecting earlier OPA adjustments, for wallboard, concrete blocks, brick, and certain types of lumber and gravel. Prices of sewer pipe, lime, and tile also increased.

Average prices for chemicals and allied products, generally stable since early 1942, increased 3.0 percent during July after suspension of price controls, largely because of higher prices for fats and oils and their products and some coal-tar products, which have been in short supply. Fertilizer materials were up 6.7 percent and natural menthol, which had been selling far below ceiling, rose 22 percent.

Shortage of all feeds for livestock resulted in an average increase of 24.5 percent for cattle feed. Higher prices of newsprint were caused by adjustments due to the revaluation of the Canadian dollar. There were increases for boxboard, soap, and rubber products, reflecting earlier adjustments in OPA ceilings.

TABLE I.—*Indexes of Wholesale Prices by Groups and Subgroups of Commodities, July 1946, Compared With Previous Months*

Groups and subgroups	Indexes (1926=100)				Percent of change to July 1946 from—		
	July 1946	June 1946	July 1945	Aug. 1939	June 1946	July 1945	Aug. 1939
All commodities	124.3	112.9	105.9	75.0	+10.1	+17.4	+65.7
Farm products	157.0	140.1	129.0	61.0	+12.1	+21.7	+157.4
Grains	181.4	151.8	128.6	51.5	+19.5	+41.1	+252.2
Livestock and poultry	162.9	137.4	133.3	66.0	+18.6	+22.2	+146.8
Other farm products	145.7	137.5	125.5	60.1	+6.0	+16.1	+142.4
Foods	140.2	112.9	106.9	67.2	+24.2	+31.2	+108.6
Dairy products	156.9	127.3	110.5	67.9	+23.3	+42.0	+131.1
Cereal products	124.9	101.7	95.3	71.9	+22.8	+31.1	+73.7
Fruits and vegetables	130.0	136.1	130.3	58.5	−4.5	−.2	+122.2
Meats	169.9	110.1	108.0	73.7	+54.3	+57.3	+130.5
Other foods	109.4	98.1	95.6	60.3	+11.5	+14.4	+81.4
Hides and leather products	141.2	122.4	118.0	92.7	+15.4	+19.7	+52.3
Shoes	140.4	129.5	126.3	100.8	+8.4	+11.2	+39.3
Hides and skins	169.3	121.5	117.6	77.2	+39.3	+44.0	+119.3
Leather	133.2	110.7	101.3	84.0	+20.3	+31.5	+58.6
Other leather products	115.2	115.2	115.2	97.1	0	0	+18.6
Textile products	113.2	109.2	99.6	67.8	+3.7	+13.7	+67.0
Clothing	120.5	120.3	107.4	81.5	+.2	+12.2	+47.9
Cotton goods	148.6	139.4	119.7	65.5	+6.6	+24.1	+126.9
Hosiery and underwear	76.3	75.8	71.5	61.5	+.7	+6.7	+24.1
Rayon	30.2	30.2	30.2	28.5	0	0	+6.0
Silk				44.3			
Woolen and worsted goods	114.0	112.7	112.7	75.5	+1.2	+1.2	+51.0
Other textile products	113.5	112.3	100.9	63.7	+1.1	+12.5	+78.2
Fuel and lighting	90.3	87.8	84.3	72.6	+2.8	+7.1	+24.4
Anthracite	114.5	106.1	101.6	72.1	+7.9	+12.7	+58.8
Bituminous coal	136.1	132.8	123.9	96.0	+2.5	+9.8	+41.8
Coke	147.5	133.5	131.0	104.2	+10.5	+12.6	+41.6
Electricity	(1)	(1)	60.3	75.8			
Gas	(1)	79.6	77.8	86.7			
Petroleum and products	65.1	64.0	64.2	51.7	+1.7	+1.4	+25.9
Metals and metal products	113.3	112.2	104.7	93.2	+1.0	+8.2	+21.6
Agricultural implements	107.2	107.0	97.7	93.5	+.2	+9.7	+14.7
Farm machinery	108.7	108.4	98.7	94.7	+.3	+10.1	+14.8
Iron and steel	111.3	110.1	99.1	95.1	+1.1	+12.3	+17.0
Motor vehicles	(2)	(2)	(2)	92.5	(2)	(2)	(2)
Nonferrous metals	102.7	99.2	85.9	74.6	+3.5	+19.6	+37.7
Plumbing and heating	106.0	106.0	92.6	79.3	0	+14.5	+33.7
Building materials	132.1	129.9	117.5	[2] 89.6	+1.7	+12.4	+47.4
Brick and tile	122.5	121.3	111.7	[2] 90.5	+1.0	+9.7	+35.4
Cement	104.0	102.6	99.4	91.3	+1.4	+4.6	+13.9
Lumber	177.3	176.0	155.1	90.1	+.7	+14.3	+96.8
Paint and paint materials	114.9	108.6	106.1	82.1	+5.8	+8.3	+40.0
Plumbing and heating	106.0	106.0	92.6	79.3	0	+14.5	+33.7
Structural steel	120.1	120.1	107.3	107.3	0	+11.9	+11.9
Other building materials	119.9	118.4	104.3	89.5	+1.3	+15.0	+34.0
Chemicals and allied products	99.3	96.4	95.3	74.2	+3.0	+4.2	+33.8
Chemicals	98.5	98.0	96.1	83.8	+.5	+2.5	+17.5
Drugs and pharmaceuticals	112.6	109.4	110.2	77.1	+2.9	+2.2	+46.0
Fertilizer materials	88.2	82.7	81.1	65.5	+6.7	+8.8	+34.7
Mixed fertilizer	86.6	86.6	86.6	73.1	0	0	+18.5
Oils and fats	114.2	102.1	102.0	40.6	+11.9	+12.0	+181.3
Housefurnishings goods	111.9	110.4	104.5	85.6	+1.4	+7.1	+30.7
Furnishings	117.3	114.5	107.5	90.0	+2.4	+9.1	+30.3
Furniture	106.4	106.1	101.5	81.1	+.3	+4.8	+31.2
Miscellaneous	101.3	98.5	94.8	73.3	+2.8	+6.9	+38.2
Automobile tires and tubes	73.0	73.0	73.0	60.5	0	0	+20.7
Cattle feed	246.3	197.8	159.6	68.4	+24.5	+54.3	+260.1
Paper and pulp	117.0	115.6	109.0	80.0	+1.2	+7.3	+46.2
Rubber, crude	46.2	46.2	46.2	34.9	0	0	+32.4
Other miscellaneous	101.9	101.0	98.9	81.3	+.9	+3.0	+25.3
Raw materials	139.6	126.3	117.5	66.5	+10.5	+18.8	+109.9
Semimanufactured articles	110.2	105.7	95.3	74.5	+4.3	+15.6	+47.9
Manufactured products	118.9	107.3	101.8	79.1	+10.8	+16.8	+50.3
All commodities other than farm products	117.0	106.7	100.7	77.9	+9.7	+16.2	+50.2
All commodities other than farm products and foods	108.8	105.6	99.7	80.1	+3.0	+9.1	+35.8

[1] No quotation.

[2] In process of revision.

Index Numbers by Commodity Groups, 1926 to July 1946

Index numbers of wholesale prices by commodity groups for selected years from 1926 to 1945, and by months from July 1945 to July 1946 are shown in table 2.

TABLE 2.—*Index Numbers of Wholesale Prices by Groups of Commodities*

[1926=100]

Year and month	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting materials	Metals and metal products	Building materials	Chemicals and allied products	House-furnishing goods	Miscellaneous	All commodities
1926	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1929	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.0	94.3	82.6	95.3
1932	48.2	61.0	72.9	54.9	70.3	80.2	71.4	73.9	75.1	64.4	64.8
1933	51.4	60.5	80.9	64.8	66.3	79.8	77.0	72.1	75.8	62.5	65.9
1936	80.9	82.1	95.4	71.5	76.2	87.0	86.7	78.7	81.7	70.5	80.8
1937	86.4	85.5	104.6	76.3	77.6	95.7	95.2	82.6	89.7	77.8	86.3
1938	68.5	73.6	92.8	66.7	76.5	95.7	90.3	77.0	86.8	73.3	78.6
1939	65.3	70.4	95.6	69.7	73.1	94.4	90.5	76.0	86.3	74.8	77.1
1940	67.7	71.3	100.8	73.8	71.7	95.8	94.8	77.0	88.5	77.3	78.6
1941	82.4	82.7	108.3	84.8	76.2	99.4	103.2	84.4	94.3	82.0	87.3
1942	105.9	99.6	117.7	96.9	78.5	103.8	110.2	95.5	102.4	89.7	98.8
1943	122.6	106.6	117.5	97.4	80.8	103.8	111.4	94.9	102.7	92.2	103.1
1944	123.3	104.9	116.7	98.4	83.0	103.8	115.5	95.2	104.3	93.6	104.0
1945	128.2	106.2	118.1	100.1	84.0	104.7	117.8	95.2	104.5	94.7	105.8
1945											
July	129.0	106.9	118.0	99.6	84.3	104.7	117.5	95.3	104.5	94.8	105.9
August	126.9	106.4	118.0	99.6	84.8	104.7	117.8	95.3	104.5	94.8	105.7
September	124.3	104.9	118.7	100.1	84.1	104.9	118.0	95.3	104.6	94.8	105.2
October	127.3	105.7	118.6	101.0	84.2	105.0	118.3	95.5	104.7	94.8	105.9
November	131.1	107.9	118.8	101.1	84.6	105.2	118.7	95.7	104.7	94.8	106.8
December	131.5	108.6	118.9	101.4	84.8	105.6	119.5	96.1	104.7	94.8	107.1
1946											
January	129.9	107.3	119.4	101.6	84.9	105.7	120.0	96.0	106.2	95.3	107.1
February	130.8	107.8	119.6	102.2	85.1	106.6	120.9	95.9	106.5	95.6	107.7
March	133.4	109.4	119.8	104.7	85.0	108.4	124.9	96.0	106.9	95.6	108.9
April	135.4	110.8	119.8	107.9	86.1	108.8	126.5	96.1	107.5	95.7	110.2
May	137.5	111.5	120.4	108.8	86.1	109.4	127.8	96.5	108.3	97.0	111.0
June	140.1	112.9	122.4	109.2	87.8	112.2	129.9	96.4	110.4	98.5	112.9
July	157.0	140.2	141.2	113.2	90.3	113.3	132.1	99.3	111.9	101.3	124.3

The price trend for specified years and months since 1926 is shown in table 3 for the following groups of commodities: Raw materials, semimanufactured articles, manufactured products, commodities other than farm products and commodities other than farm products and foods. The list of commodities included under the classifications "Raw materials," "Semimanufactured articles," and "Manufactured products" was shown on pages 10 and 11 of Wholesale Prices, July-December and year 1943 (Bulletin No. 785).

TABLE 3.—*Index Numbers of Wholesale Prices by Special Groups of Commodities*

[1926=100]

Year and month	Raw materials	Semimanufactured articles	Manufactured products	All commodities other than farm products	All commodities other than farm products and foods	Year and month	Raw materials	Semimanufactured articles	Manufactured products	All commodities other than farm products	All commodities other than farm products and foods
1926	100.0	100.0	100.0	100.0	100.0	*1945*					
1929	97.5	93.9	94.5	93.3	91.6	July	117.5	95.3	101.8	100.7	99.7
1932	55.1	59.3	70.3	68.3	70.2	August	116.3	95.5	101.8	100.9	99.9
1933	56.5	65.4	70.5	69.0	71.2	September	114.8	96.5	101.7	100.9	99.8
1936	79.9	75.9	82.0	80.7	79.6	October	116.6	96.8	101.9	101.0	100.1
						November	118.9	96.9	102.2	101.3	100.2
1937	84.8	85.3	87.2	86.2	85.3	December	119.2	97.6	102.5	101.6	100.5
1938	72.0	75.4	82.2	80.6	81.7						
1939	70.2	77.0	80.4	79.5	81.3	*1946*					
1940	71.9	79.1	81.6	80.8	83.0	January	118.3	97.6	102.9	101.9	100.8
1941	83.5	86.9	89.1	88.3	89.0	February	118.9	98.8	103.4	102.5	101.3
						March	120.5	100.4	104.5	103.4	102.2
1942	100.6	92.6	98.6	97.0	95.5	April	122.2	101.1	105.5	104.5	103.3
1943	112.1	92.9	100.1	98.7	96.9	May	123.6	101.9	106.1	105.1	103.9
1944	113.2	94.1	100.8	99.6	98.5	June	126.3	105.7	107.3	106.7	105.6
1945	116.8	95.9	101.8	100.8	99.7	July	139.6	110.2	118.9	117.0	108.8

Weekly Fluctuations

Weekly changes in wholesale prices by groups of commodities during June and July 1946 are shown by the index numbers in table 4. These indexes are not averaged to obtain an index for the month, but are computed only to indicate the fluctuations from week to week.

TABLE 4.—*Weekly Index Numbers of Wholesale Prices by Commodity Groups, June and July 1946*

[1926=100]

Commodity group	July 27	July 20	July 13	July 6	June 29	June 22	June 15	June 8	June 1
All commodities	124.1	124.2	120.7	117.2	112.7	112.4	111.8	111.5	111.1
Farm products	157.3	159.2	153.9	152.9	140.3	140.0	139.9	139.4	138.8
Foods	140.7	142.0	134.0	121.1	113.4	113.7	111.8	111.9	111.8
Hides and leather products	144.0	139.3	129.1	124.0	123.8	123.5	123.4	120.9	120.9
Textile products	109.5	109.5	108.8	108.8	108.5	108.3	108.3	108.3	108.2
Fuel and lighting materials	90.2	90.2	90.1	89.5	87.5	87.1	86.9	86.9	86.7
Metals and metal products	113.3	113.2	113.0	112.6	111.6	111.0	111.0	110.5	109.5
Building materials	132.6	132.5	131.8	130.7	130.3	129.7	128.5	128.2	127.8
Chemicals and allied products	100.3	100.0	98.4	98.2	96.9	96.9	96.8	96.8	96.6
Housefurnishing goods	112.5	112.5	110.7	110.7	110.7	110.4	110.4	110.2	110.0
Miscellaneous	101.7	98.8	98.3	98.0	97.9	97.9	97.9	97.9	97.8
Raw materials	140.2	141.4	137.2	135.2	126.7	126.0	125.8	125.5	125.1
Semimanufactured articles	109.0	108.5	107.5	106.1	104.4	104.4	104.4	103.4	101.7
Manufactured products	119.3	118.9	115.3	110.9	107.8	107.7	106.8	106.6	106.5
All commodities other than farm products	116.8	116.6	113.3	109.4	106.6	106.3	105.6	105.4	105.1
All commodities other than farm products and foods	108.6	107.8	106.9	106.3	105.4	105.1	104.9	104.6	104.3

Building Operations

Building Construction in Urban Areas, July 1946

PERMIT valuations of urban building construction totaled 353 million dollars in July 1946. While this was more than double the figure for July a year ago, it was the lowest monthly total reported since the construction limitation order became effective March 26. Residential construction valuations, even after declining steadily during the 4-month period, accounted for more than half the July 1946 total. In the preceding July, housing constituted a little more than a third of all urban building.

Additions, alterations, and repair work, which was the only type of construction to gain during the month, rose from 58 million to 60 million dollars. Nonresidential building remained virtually the same as in June—105 million dollars—and home construction dropped from 204 million to 188 million dollars. A decrease of 17 million dollars in the amount of Federal construction contracts awarded was responsible for the entire decline in July; non-Federal valuations increased slightly, reaching a total of 344 million dollars.

TABLE 1.—*Permit Valuation* [1] *of Urban Building Construction, by Class of Construction and by Source of Funds, July 1946*

Class of construction	Valuation (in millions)								
	Total			Non-Federal			Federal		
	July 1946	Percent of change [2] from—		July 1946	Percent of change [2] from—		July 1946	Percent of change [2] from—	
		June 1946	July 1945		June 1946	July 1945		June 1946	July 1945
All construction	$353	−4.2	+108.3	$344	+0.4	+148.7	[3] $9	−66.7	−72.8
New residential [4]	188	−8.2	+210.7	180	−2.5	+244.3	[3] 8	−60.6	−3.6
New nonresidential	105	−.6	+63.2	105	+.7	+137.5	0	−100.0	−100.0
Additions, alterations, and repairs	60	+3.2	+34.6	59	+9.4	+41.5	1	−86.3	−79.4

[1] Includes value of Federal construction contracts awarded.
[2] Percentage change computed before rounding.
[3] Includes $7,830,000 which is the estimated cost of 1,310 dwelling units in New York City Housing Authority projects. These projects, although financed by city funds, are included with Federal projects in order to segregate public from private housing.
[4] Includes value of dormitories and other nonhousekeeping residential buildings in addition to housekeeping units.

The number of new family dwelling units scheduled to be started in urban areas fell from 43,833 in June to 38,140 in July. Although there was very little change between June and July 1946 in the number of privately financed units reported, publicly financed units dropped

from 7,173 to 1,310. In July 1945, permits were issued for 12,956 privately financed units and Federal construction contracts were awarded for 2,957 publicly financed units.

TABLE 2.—*Number and Permit Valuation [1] of New Dwelling Units in All Urban Areas, by Source of Funds and by Type of Dwelling, July 1946*

Source of funds and type of dwelling	Number of dwelling units			Valuation (in thousands)		
	July 1946	Percent of change from—		July 1946	Percent of change from—	
		June 1946	July 1945		June 1946	July 1945
All dwellings	38,140	−13.0	+139.7	$185,223	−8.0	+209.6
Privately financed	36,830	+.5	+184.3	177,393	−2.9	+243.2
1-family	31,071	−1.0	+196.9	157,063	−1.8	+260.9
2-family [2]	1,902	−11.3	+143.2	7,841	−14.5	+189.7
Multifamily [3]	3,857	+22.7	+125.6	12,489	−8.3	+128.9
Federally financed [4]	1,310	−81.7	−55.7	[4] 7,830	−57.8	−3.9

[1] Includes value of Federal construction contracts awarded.
[2] Includes 1- and 2-family dwellings with stores.
[3] Includes multifamily dwellings with stores.
[4] Covers 1,310 dwelling units in New York City Housing Authority project, estimated to cost $7,830,000. This project, although financed by city funds, is included under Federal projects in order to segregate public from private housing. All other types of non-Federal public construction are included under "Non-Federal."

Comparison of First 7 Months of 1945 and 1946

Urban permit valuations amounted to 2,957 million dollars during the first 7 months of 1946, more than 3½ times the cumulative total for the corresponding period of 1945. Housing jumped from 263 million dollars in 1945 to 1,440 million in 1946; new nonresidential building rose from 330 million to 1,027 million dollars, and additions, alterations, and repairs, from 241 million to 490 million dollars. Non-Federal building valuations for the first 7 months of the year were more than 4½ times greater in 1946 than in 1945 (2,802 million dollars as compared with 614 million); on the other hand, Federal activity declined slightly, from 220 million to 155 million dollars.

TABLE 3.—*Permit Valuation [1] of Urban Building Construction, by Class of Construction and by Source of Funds, First 7 Months of 1945 and 1946*

Class of construction	Valuation (in millions)								
	Total			Non-Federal			Federal		
	First 7 months of—		Percent of change	First 7 months of—		Percent of change	First 7 months of—		Percent of change
	1946	1945		1946	1945		1946	1945	
All construction	$2,957	$834	+254.6	$2,802	$614	+356.4	[2] $155	$220	−29.5
New residential [3]	1,440	263	+447.5	1,324	235	+463.4	[2] 116	28	+314.3
New nonresidential	1,027	330	+211.2	1,005	160	+528.1	22	170	−87.1
Additions, alterations, and repairs	490	241	+103.3	473	219	+116.0	17	22	−22.7

[1] Includes value of Federal construction contracts awarded.
[2] Includes $14,507,850 which is the estimated cost of 3,256 dwelling units contained in New York City Housing Authority projects. These projects, although financed by city funds, are included with Federal projects in order to segregate public from private housing. All other types of non-Federal public construction are included under "Non-Federal."
[3] Includes value of dormitories and other nonhousekeeping residential buildings in addition to housekeeping units.

TABLE 4.—*Number and Permit Valuation [1] of New Dwelling Units in All Urban Areas, First 7 Months of 1945 and 1946*

Source of funds and type of dwelling	Number of dwelling units			Valuation (in thousands)		
	First 7 months of—		Percent of change	First 7 months of—		Percent of change
	1946	1945		1946	1945	
All dwellings	[4] 304,255	73,953	+311.4	[4] $1,405,505	$259,518	+441.6
Privately financed	266,556	64,009	+316.4	1,294,454	232,727	+456.2
1-family	224,910	52,225	+330.7	1,134,125	197,103	+475.4
2-family [2]	15,668	4,610	+239.9	64,359	14,433	+345.9
Multifamily [3]	25,978	7,174	+262.1	95,970	21,191	+352.9
Federally financed	[4] 37,699	9,944	+279.1	[4] 111,051	26,791	+314.5

[1] Includes value of Federal construction contracts awarded.
[2] Includes 1- and 2-family dwellings with stores.
[3] Includes multifamily dwellings with stores.
[4] Includes New York City Housing Authority projects containing 3,256 dwelling units with estimated cost of $14,507,850. These projects, although financed by city funds, are included with Federal projects in order to segregate public from private housing.

Construction From Federal Funds, June 1946 [1]

The value of contracts awarded and force-account work started during May and June 1946 and June 1945 on all construction projects financed wholly or partially from Federal funds and reported to the Bureau of Labor Statistics is shown in table 5. This table includes all types of construction both inside and outside the corporate limits of cities in continental United States.

TABLE 5.—*Value of Contracts Awarded and Force Account Work Started on Federally Financed Construction in Continental United States, by Type of Project, June 1946*

Type of project	Value (in thousands)		
	June 1946 [1]	May 1946	June 1945
All types	$226,200	$176,763	$86,843
Airports [2]	785	267	8,526
Buildings:			
Residential	33,582	48,546	5,419
Nonresidential	22,948	3,958	39,951
Electrification [3]	52,546	44,802	12,118
Highways, streets, and roads	88,231	58,471	5,240
Reclamation	1,407	8,897	2,110
River, harbor, and flood control	12,175	9,530	2,843
Water and sewer	1,444	691	2,248
Miscellaneous	13,082	1,601	8,388

[1] Revised. Because of delay in receipt of contract notifications, preliminary figures for the current month will no longer be shown. During the past few months the necessary upward revisions have been so great that the preliminary figures lost their significance.
[2] Exclusive of hangars and other buildings which are included under building construction.
[3] Includes the value of loan agreements made for Rural Electrification projects.

[1] See footnote 1, table 5.

Coverage and Method

Figures on building construction in this report cover the entire urban area of the United States which by Census definition includes all incorporated places with a 1940 population of 2,500 or more and, by special rule, a small number of unincorporated civil divisions. Valuation figures, the basis for statements concerning value, are derived from estimates of construction cost made by prospective builders when applying for permits to build and the value of contracts awarded by the Federal Government. No land costs are included. Unless otherwise indicated, only building construction within the corporate limits of cities in urban areas is included in the tabulations.

Reports of building permits which were received for cities containing between 80 and 85 percent of the urban population of the country provide the basis for estimating the total number of buildings and dwelling units and the valuation of private urban building construction. Similar data for Federally financed urban building construction are compiled directly from notifications of construction contracts awarded, as furnished by Federal agencies.

Trends of Employment and Labor Turn-Over

Labor Force, July 1946

WHO IS COUNTED IN THE LABOR FORCE

Labor force.—Persons 14 years of age and over who are employed or unemployed during the census week.

Employed.—Those at work either full- or part-time and those who have jobs but are not at work such as (1) persons laid off with definite instructions to return to work within 30 days, (2) on vacation or ill, (3) on strike or not at work because of bad weather or similar causes.

Unemployed.—Those not working, but seeking a job. Persons working part-time are *not* included with the unemployed even though they may be seeking additional work.

Unemployment declined by 290,000 persons between June and July 1946 to a level of 2,270,000, according to the Bureau of the Census Monthly Report on the Labor Force. Employment increased by 1,390,000, and the civilian labor force rose by 1,100,000 to a total of 60,400,000.

The decline in unemployment was primarily nonseasonal in character, and continued the strong downward movement from the March peak. The volume of unemployment in July constituted a new low for the year 1946. Unemployment of men (1,760,000) in July 1946 was more than 3½ times as great as the corresponding total a year earlier. In contrast, the number of unemployed women (510,000) was approximately the same as a year ago. Ex-servicemen constituted more than one-half the number of unemployed men.

An increase of 1,430,000 in nonagricultural employment during the month occurred principally among teen-agers and ex-servicemen. There was no significant return to the labor market on the part of adult women. The seasonal entry of 14- to 19-year-olds at the close of the school term was unusually large this year. This may be due partly to the back-to-school movement of last fall, as well as to the currently favorable job situation.

The level of nonagricultural employment (48,190,000) in July 1946 exceeded the July 1945 level by 3,760,000. Inasmuch as more people

were on vacation this year, the number actually at work increased by 3,050,000 over the year.

Agricultural employment showed virtually no change during the month. The July 1946 total was 9,940,000, compared with 9,840,000 a year ago.

Total Labor Force in the United States, Classified by Employment Status, Hours Worked, and Sex, June and July 1946 and July 1945

[Source: U. S. Department of Commerce, Bureau of the Census]

Item	Estimated number (in thousands) of persons 14 years of age and over [1]								
	Total, both sexes			Male			Female		
	June 1946	July 1946	July 1945	June 1946	July 1946	July 1945	June 1946	July 1946	July 1945
Total labor force [2]	62,300	63,040	67,500	44,970	45,590	47,150	17,330	17,450	20,350
Civilian labor force	59,300	60,400	55,220	42,030	43,000	35,140	17,270	17,400	20,080
Unemployment	2,560	2,270	950	2,000	1,760	480	560	510	470
Employment	56,740	58,130	54,270	40,030	41,240	34,660	16,710	16,890	19,610
Nonagricultural	46,760	48,190	44,430	32,450	33,460	27,530	14,310	14,730	16,900
Worked 35 hours or more	39,560	39,780	37,190	28,570	28,990	24,430	10,990	10,790	12,760
Worked 15–34 hours	4,140	3,750	3,150	2,120	1,910	1,320	2,020	1,840	1,830
Worked 1–14 hours [3]	1,110	1,000	1,140	500	380	380	610	620	760
With a job but not at work [4]	1,950	3,660	2,950	1,260	2,180	1,400	690	1,480	1,550
Agricultural	9,980	9,940	9,840	7,580	7,780	7,130	2,400	2,160	2,710
Worked 35 hours or more	8,150	7,830	7,810	6,890	6,760	6,330	1,260	1,070	1,480
Worked 15–34 hours	1,600	1,790	1,710	560	790	600	1,040	1,000	1,110
Worked 1–14 hours [3]	150	160	180	(*)	100	100	(*)	(*)	(*)
With a job but not at work [4]	(*)	160	140	(*)	130	100	(*)	(*)	(*)

[1] Estimates are subject to sampling variation which may be large in cases where the quantities shown are relatively small. Therefore, the smaller estimates should be used with caution; those under 100,000 are not presented in the table but are replaced with an asterisk (*). All data exclude persons in institutions.

[2] Total labor force consists of the civilian labor force and the armed forces. Estimates of the armed forces during the census week are projected from data on net strength as of the first of the month.

[3] Excludes persons engaged only in incidental unpaid family work (less than 15 hours); these persons are classified as not in the labor force.

[4] Includes persons who had a job or business, but who did not work during the census week because of illness, bad weather, vacation, labor dispute, or because of temporary lay-off with definite instructions to return to work within 30 days of lay-off. Does not include unpaid family workers.

Summary of Employment Reports for July 1946

EXPANDING employment in manufacturing and construction was primarily responsible for a further rise in the total number of employees in nonagricultural establishments in July. The employment estimate of 39,273,000 represents a gain of 149,000 since June 1946 and is 799,000 above July 1945. Unemployment, according to the Bureau of the Census, was estimated at 2,270,000 in July 1946, almost 300,000 less than in the preceding month.

In addition to the increases of 132,000 in manufacturing and 114,000 in construction, lesser employment gains were reported between June and July in transportation and public utilities, finance, service and miscellaneous, and mining. Trade and government employment decreased. For the most part, the decline in trade was

seasonal; while the drop in government reflected primarily further cuts in the War and Navy Departments, although the summer closing of schools was also a factor.

Industrial and Business Employment

Almost all of the employment increase in manufacturing was in production workers, where there was an increase of more than 1 percent, or 131,000. Over three-fourths of this increase was concentrated in the durable goods industries.

Increases were reported by most of the major durable goods industries. The largest increases—40,000 and 31,000—were reported for iron and steel and automobiles. Greater supplies of coal and other materials were the chief factors in both these increases.

An increase of 9,000 workers raised employment in the lumber group to 603,000. Two of the building materials industries—lumber and stone, clay, and glass—together employ about a million workers, almost 20 percent more than a year ago.

The decline of 48,000 in the textile and apparel industries offset, in part, the seasonal increase of 85,000 in the food group. Employment in the 8 remaining nondurable goods groups showed practically no change.

TABLE 1.—*Estimated Number of Employees in Nonagricultural Establishments, by Industry Division*

Industry division	Estimated number of employees (thousands)			
	July 1946 [1]	June 1946	May 1946	July 1945
Total estimated employment [2]	39,273	39,044	38,612	38,474
Manufacturing [3]	14,221	14,089	13,885	15,331
Mining	813	806	713	784
Contract construction and Federal force-account construction	1,988	1,874	1,742	911
Transportation and public utilities	3,965	3,916	3,873	3,858
Trade	7,742	7,748	7,724	6,975
Finance, service, and miscellaneous	5,152	5,131	5,134	4,672
Federal, State, and local government, excluding Federal force-account construction	5,392	5,480	5,541	5,943

[1] Preliminary.

[2] Estimates include all full- and part-time wage and salary workers in nonagricultural establishments who worked or received pay during the pay period ending nearest the 15th of the month. Proprietors, self-employed persons, domestic servants, and personnel of the armed forces are excluded.

[3] Estimates for manufacturing have been adjusted to levels indicated by final 1944 data made available by the Bureau of Employment Security of the Federal Security Agency. These estimates, which are comparable with the production-worker estimates in table 2, supersede those shown in mimeographed releases dated prior to July 18, 1946, and Monthly Labor Reviews dated prior to August 1946. Data from January 1943 forward were affected by this revision. A complete series from 1939 to date is available upon request.

TABLE 2.—*Estimated Number of Production Workers and Indexes of Production-Worker Employment in Manufacturing Industries, by Major Industry Group* [1]

Industry group	Estimated number of production workers (thousands)		Production-worker indexes (1939=100)	
	July 1946 [2]	July 1945	July 1946 [2]	July 1945
All manufacturing	11,534	12,459	140.8	152.1
Durable goods	5,814	7,054	161.0	195.3
Nondurable goods	5,720	5,405	124.9	118.0
Iron and steel and their products	1,382	1,555	139.3	156.8
Electrical machinery	504	659	194.4	254.1
Machinery, except electrical	1,027	1,105	194.4	209.2
Transportation equipment, except automobiles	461	1,577	290.2	993.9
Automobiles	699	601	173.6	149.3
Nonferrous metals and their products	372	384	162.2	167.6
Lumber and timber basic products	603	522	143.4	124.2
Furniture and finished lumber products	376	334	114.5	101.7
Stone, clay, and glass products	390	317	132.9	108.1
Textile-mill products and other fiber manufactures	1,183	1,051	103.5	91.8
Apparel and other finished textile products	999	869	126.5	110.0
Leather and leather products	355	313	102.3	90.1
Food	1,102	1,089	129.0	127.5
Tobacco manufactures	85	78	90.7	83.4
Paper and allied products	361	309	135.9	116.4
Printing, publishing, and allied industries	383	317	116.8	96.8
Chemicals and allied products	468	643	162.5	223.2
Products of petroleum and coal	151	136	142.7	128.0
Rubber products	218	194	180.2	160.5
Miscellaneous industries	415	406	169.6	165.9

[1] The estimates and indexes presented in this table have been adjusted to levels indicated by the final 1944 data made available by the Bureau of Employment Security of the Federal Security Agency.
[2] Preliminary.

Public Employment

Civilian.—In accordance with the Federal Employees Pay Act of 1946 granting a 14-percent increase to most Federal employees in so-called white-collar jobs, the average Federal salary rose in July and prevented the total pay roll from dropping in proportion to employment. In fact, the total July pay roll was slightly higher than that for May, $569,000,000 as compared with $563,000,000 in the respective months. The figure for May, however, includes approximately $35,000,000 for the postal employees' salary increase of $400 a year each, which was made retroactive to the first of the year. (June pay rolls cannot be used in this kind of comparison because they include three pay periods for employees who are paid biweekly.)

Except for a seasonal gain of 7,000 in the Department of Agriculture and gains of 6,000 and 3,800 in the Veterans' Administration and Post Office Department, respectively, employment of the peacetime agencies was practically the same in June and July.

Of the war agencies, the War Assets Administration was the only one showing a sizable employment gain (4,000); the War and Navy Departments reduced their staffs by a total of 59,000 within continental United States.

Altogether, the war agencies dropped 838,000 employees on the continent during the year ended July 1, 1946. A part of the drop, however, was occasioned by transfers of certain agencies and functions to peacetime agencies, which, aside from a 104,000 increase in

the Veterans' Administration, accounted for a large part of the 192,000 employment increase in peacetime agencies during the year.

Although the President's Plan No. 1 for the reorganization of the executive branch of the Government was nullified by Congress, his Plans Nos. 2 and 3 went into effect July 16 upon the failure of Congress to nullify them within the 60-day limit provided by the enabling legislation, the Reorganization Act of 1945.

According to Plan No. 2, the Federal Security Agency acquired the social welfare functions of the Children's Bureau (from the Department of Labor), the collection of vital statistics (from the Bureau of the Census), functions of the U. S. Employees Compensation Commission, and the functions of a number of offices and subdivisions of agencies which were abolished by the plan.

TABLE 3.—*Employment and Pay Rolls for Regular Federal Services and for Government Corporations in Selected Months*

Year and month	Total	Executive [1]			Legislative	Judicial	Government corporations [2]
		All areas	Continental United States				
			Total	Washington, D. C., area			
	Employment [3]						
July 1939	978,683	945,467	906,199	124,178	5,353	2,292	25,571
July 1940	1,079,976	1,045,235	985,491	134,190	5,886	2,468	26,387
July 1941	1,473,284	1,433,783	1,344,486	184,908	6,132	2,526	30,843
July 1942	2,350,646	2,308,761	2,112,748	269,814	6,539	2,645	32,701
July 1943	3,334,770	3,290,622	2,987,890	279,384	6,163	2,624	35,361
July 1944	3,352,013	3,306,366	2,918,228	270,019	6,258	2,663	36,726
July 1945	3,826,865	3,782,967	2,936,210	257,808	6,444	2,706	34,744
May 1946	2,873,057	2,830,442	2,361,518	237,761	6,518	3,086	33,011
June 1946	2,808,636	2,766,165	2,327,712	236,017	6,561	3,081	32,829
July 1946 [4]	2,752,379	2,709,711	2,290,291	235,023	6,697	3,063	32,908
	Pay rolls (in thousands) [5]						
July 1943	$664,482	$656,796	$608,607	$57,228	$1,510	$768	$5,408
July 1944	699,890	692,130	636,960	56,260	1,528	775	5,457
July 1945	728,436	720,324	650,040	59,183	1,771	841	5,500
May 1946 [4]	562,563	553,910	513,682	53,762	1,819	952	5,882
June 1946 [4]	653,990	645,188	602,418	73,196	2,044	1,206	5,552
July 1946 [4]	568,721	559,965	519,667	58,041	2,102	967	5,687

[1] Includes employees on force-account construction who are also included under construction projects (table 65). Beginning July 1945, data include clerks at third-class post offices who were previously working on a contract basis. Data exclude substitute rural mail carriers.

[2] Data are for employees of the Panama Railroad Company, the Federal Reserve banks, and banks of the Farm Credit Administration. Data for other Government corporations are included under the executive service.

[3] Employment is as of the first of the calendar month.

[4] Preliminary.

[5] Data are for all pay periods ending within the calendar month. Beginning July 1945, this represents, or most employees, pay for 4 weeks for months other than June 1946; June 1946 figures include 3 pay periods covering 6 weeks for most per annum employees.

The most important provisions of Plan No. 3 were the transfer of the function of the placement of veterans in jobs other than the ones they had held immediately before entering the armed forces from the Selective Service System to the U. S. Employment Service, and the abolition of the National Labor Relations Board function of taking strike ballots as required under the War Labor Disputes Act.

The reorganization plans did not effect transfers between the wartime and the peacetime agencies but are expected to result in economies through more logical grouping of functions.

TABLE 4.—*Employment and Pay Rolls for the Executive Branch of the Federal Government in Selected Months* [1]

Year and month	All agencies	War agencies [2]			Other agencies [3]		
		Total	Continental United States	Outside continental United States [4]	Total	Continental United States	Outside continental United States [4]
	Employment [5]						
July 1939	945,467	209,223	179,370	29,853	736,244	726,829	9,415
July 1940	1,045,235	280,102	232,061	48,041	765,133	753,430	11,703
July 1941	1,433,783	617,601	541,618	75,983	816,182	802,868	13,314
July 1942	2,308,761	1,430,828	1,249,077	181,751	877,933	863,671	14,262
July 1943	3,290,622	2,468,875	2,181,359	287,516	821,747	806,531	15,216
July 1944	3,306,366	2,476,218	2,103,800	372,418	830,148	814,428	15,720
July 1945	3,782,967	2,848,405	2,020,240	828,165	934,562	915,970	18,592
May 1946	2,830,442	1,738,093	1,293,212	444,881	1,092,349	1,068,306	24,043
June 1946	2,766,165	1,650,995	1,238,769	412,226	1,115,170	1,088,943	26,227
July 1946	2,709,711	1,575,112	1,182,619	392,493	1,134,592	1,107,672	26,927
	Pay rolls (in thousands) [7]						
July 1943	656,796	494,176	449,262	44,914	162,620	159,345	3,275
July 1944	692,130	522,075	470,292	51,783	170,055	166,668	3,387
July 1945	720,324	530,839	464,635	66,204	189,485	185,405	4,080
May 1946 [6]	553,910	305,222	270,133	35,089	248,688	243,549	5,139
June 1946 [6]	645,188	331,014	293,533	37,481	314,174	308,885	5,289
July 1946 [6]	559,965	309,860	275,939	33,921	250,105	243,728	6,377

[1] Includes employees on force-account construction who are also included under construction projects (table 6).
[2] Covers War and Navy Departments, Maritime Commission, National Advisory Committee for Aeronautics, The Panama Canal, and the emergency war agencies.
[3] Beginning July 1945, data include clerks at third-class post offices who previously were working on a contract basis. Data exclude substitute rural mail carriers.
[4] Includes Alaska and the Panama Canal Zone.
[5] Employment is as of the first of the calendar month.
[6] Preliminary.
[7] Data are for all pay periods ending within the calendar month. Beginning July 1945, this represents, for most employees, pay for 4 weeks for months other than June 1946; June 1946 figures include 3 pay periods covering 6 weeks for most per annum employees.

Military.—A pay increase for military personnel, which became effective July 1, 1946,[1] raised base pay ranging from 50 percent for privates to 10 percent for officers of the rank of major or above. For the armed forces as a whole, average pay was increased approximately one-fourth over former levels, bringing the total military pay roll to just under half a billion dollars for the month of July 1946, or to a level higher than in May when three quarters of a million more men were in uniform.

Mustering-out pay declined $26,000,000 in July 1946 to a level of $115,000,000, while family allowances declined $4,000,000 to a total of $43,000,000.

The Army pay roll, which at the peak was almost double that of the Navy, was only 17 percent higher in July. All types of pay for the two branches amounted to $636,000,000 for the month of July 1946—over a billion dollars less than for July 1945.

[1] Granted by Public Law No. 474, 79th Cong., approved June 29, 1946.

Discharges which totaled more than 1,500,000 a month during October, November, and December, dropped to a little over 1,000,000 a month in January and February, to over half a million in March and April, and to less than half a million in May and June. In other words, the total number of veterans returning to civilian life between VJ-day and July 1, 1946, was over 10 million. Partially offset by enlistments and inductions, these discharges brought total military strength to 3,100,000 on July 1, 1946, in the eleventh month following the close of World War II.

Source of data.—Data for the Federal executive service are reported through the Civil Service Commission, whereas data for the legislative and judicial services and Government corporations are reported to the Bureau of Labor Statistics. Employment on Federal force-account construction is included in both the executive branch (tables 3 and 4) and in construction employment (table 6).

Military personnel and pay figures are reported monthly to the Bureau of Labor Statistics but are published here only quarterly.

Mimeographed tables giving civilian employment and military personnel and pay, monthly, 1939 to date, and civilian pay rolls, monthly, 1943 to date, are available upon request.

TABLE 5.—*Personnel and Pay of the Military Branch of the Federal Government in Selected Months* [1]

[In thousands]

Branch, sex, or type of pay	July 1946 [2]	June 1946 [3]	May 1946 [3]	July 1945
Personnel, total [4]	3,105	3,422	3,853	12,295
Army	1,890	2,008	2,168	8,266
Navy	1,216	1,414	1,685	4,029
Men	3,044	3,351	3,769	12,020
Women	61	71	84	275
Pay, total	$635,634	$611,932	$694,933	$1,684,712
Army	342,960	341,423	382,575	1,079,480
Navy	292,674	270,509	312,358	605,232
Pay rolls [5]	477,220	423,007	468,474	1,378,785
Mustering-out pay	115,426	141,770	170,666	46,940
Family allowances [6]	42,988	47,155	55,793	258,988

[1] Because of rounding, totals will not necessarily agree with the sum of the items shown. Figures for the Navy cover the Navy, Marine Corps, and Coast Guard.

[2] Preliminary.

[3] Revised. Figures which are still preliminary are as follows: Personnel, May and June; Navy pay rolls June; Navy mustering-out pay, May and June.

[4] Personnel is as of the first of the calendar month. The figures include officers on terminal leave, as of the reporting dates shown. Navy personnel include the missing and those in the hands of the enemy.

[5] Pay rolls are computed from personnel records. For the Army the personnel count used in the computations is as of the last day of the month. The increase in pay granted under Public Law No. 474, 79th Cong., is shown in the July 1946 data. Pay rolls for the Navy proper include quarterly clothing allowances in July; for July 1946 these allowances amounted to $8,593,000.

[6] Represents Government's contribution. The men's share is included in the pay roll.

Construction

EMPLOYMENT

Employment on construction in continental United States reached a total of 2,194,300 in July 1946, more than doubling since VJ-day. The July total was 122,200 above June and 1,151,200 above July a year ago. Both Federal and non-Federal projects showed employ-

ment gains during the month; however, over the year, Federal construction employment dropped from 233,600 to 157,500.

There were substantial increases between July 1945 and July 1946 in employment in all categories of non-Federal construction, but the most pronounced were in housing and nonresidential building. The number of workers on the former rose from 159,400 to 608,600 and on the latter from 222,800 to 673,600. Although employment was also considerably higher this July than last on several types of Federal construction (residential building, new streets and highways, and electrification, reclamation, and river, harbor, and flood control projects), these gains were more than offset by the drop of 144,700 on federally financed nonresidential building alone.

Source of data.—For construction projects financed wholly or partially from Federal funds, the Bureau of Labor Statistics receives

TABLE 6.—*Estimated Employment and Pay Rolls on Construction in Continental United States, July 1946*

Type of project	Employment (in thousands)			Pay rolls (in thousands)		
	July 1946 [1]	June 1946 [2]	July 1945 [2]	July 1946 [1]	June 1946 [2]	July 1945 [2]
Total construction [3]	2,194.3	2,072.1	1,043.1	(4)	(4)	(4)
At the construction site	1,922.7	1,813.0	929.9	(4)	(4)	(4)
Federal projects [5]	[6] 157.5	[6] 132.9	[6] 233.6	[7] $30,127	[7] $25,434	[7] $48,188
Airports	3.8	3.9	9.9	755	741	1,821
Buildings	72.1	55.9	175.8	13,025	9,971	36,486
Residential	51.0	32.7	10.0	9,525	5,827	2,354
Nonresidential [8]	[6] 21.1	[6] 23.2	[6] 165.8	[7] 3,500	[7] 4,144	[7] 34,132
Electrification	4.8	4.3	.8	789	680	128
Reclamation	8.7	9.1	6.1	1,867	2,057	1,442
River, harbor, and flood control	20.4	19.7	13.3	4,316	3,993	2,644
Streets and highways	43.0	35.9	9.8	8,539	7,216	1,871
Water and sewer systems	1.2	1.2	3.2	252	256	566
Miscellaneous	3.5	2.9	14.7	584	520	3,230
Non-Federal projects	1,765.2	1,680.1	696.3	(4)	(4)	(4)
Buildings	1,282.2	1,236.1	382.2	307,728	297,900	92,492
Residential	608.6	589.5	159.4	(4)	(4)	(4)
Nonresidential	673.6	646.6	222.8	(4)	(4)	(4)
Farm dwellings and service buildings	170.7	148.9	144.2	(4)	(4)	(4)
Public utilities	150.0	148.2	118.9	(4)	(4)	(4)
Streets and highways	80.5	72.4	32.0	(4)	(4)	(4)
State	26.0	23.0	14.7	(4)	(4)	(4)
County and municipal	54.5	49.4	17.3	(4)	(4)	(4)
Miscellaneous	81.8	74.5	19.0	(4)	(4)	(4)
Other [9]	271.6	259.1	113.2	(4)	(4)	(4)
Maintenance of State roads [10]	114.0	108.4	92.2	(4)	(4)	(4)

[1] Preliminary.
[2] Revised.
[3] Data are for all construction workers (contract and force-account) engaged on new construction, additions, alterations, and on repair work of the type usually covered by building permits. (Force-account employees are workers hired directly by the owner and utilized as a separate work force to perform construction work of the type usually chargeable to capital account.) The construction figure included in the Bureau's nonagricultural employment series covers only employees of construction contractors and on Federal force-account and excludes force-account workers of State and local governments, public utilities, and private firms.
[4] Data not available.
[5] Includes the following force-account employees, hired directly by the Federal Government, and their pay rolls: July 1945, 18,161, $3,587,370; June 1946, 18,181, $3,593,404; July 1946, 19,244, $3,571,294. These employees are also included under the Federal executive service (tables 3 and 4); all other workers were employed by contractors and subcontractors.
[6] Includes employment on construction of plants to produce atomic bombs, which, for security reasons, was not previously included in these estimates but was shown in the classification "other", as follows: June 1945, 27,000; June 1946, 2,200; July 1946, 2,500.
[7] Excludes pay-roll data for construction of plants to produce atomic bombs.
[8] Employees and pay rolls for Defense Plant Corporation projects are included, but those for projects financed from RFC loans are excluded. The latter are considered non-Federal projects.
[9] Includes central office force of construction contractors, shop employees of special trades contractors, such as bench sheet-metal workers, etc.
[10] Data for other types of maintenance not available.

monthly reports on employment and pay rolls at the construction site, directly from the contractors or from the Federal agency sponsoring the project. Force-account employees hired directly by the Federal Government are also included in tables 3 and 4 under Federal executive service.

Estimates of employment on non-Federal construction projects (except State roads) are obtained by converting the value of work started (compiled from reports on building permits issued, priorities granted, and from certain special reports) into monthly expenditures and employment by means of factors which have been developed from special studies and adjusted to current conditions. For State roads projects, data represent estimates of the Public Roads Administration.

EARNINGS AND HOURS

Despite continued materials shortages, average weekly earnings increased during June in all of the special trades and in both building and nonbuilding construction. In most instances this was due, at least in part, to increases in the average workweek as well as to rises in average hourly earnings. The only exceptions were in plumbing and heating and electrical work. In the former, a slight decrease in the workweek was more than offset by an increase in hourly earnings; the reverse was true in the latter category.

Reports on number of employees, weekly pay rolls, and weekly hours are received monthly from approximately 11,000 different contractors. Data published are summaries of all reports received during the months shown and do not necessarily represent reports from identical firms.

TABLE 7.—*Average Hours and Earnings on Private Construction Projects, for Selected Types of Work, June 1946* [1]

[Subject to revision]

Type of work	Average hours per week			Average weekly earnings [2]			Average hourly earnings		
	June 1946	May 1946 [3]	June 1945	June 1946	May 1946 [3]	June 1945	June 1946	May 1946 [3]	June 1945
All types of work	38.6	37.8	(4)	$54.92	$53.34	(4)	$1.423	$1.411	(4)
Building construction	38.2	37.5	40.4	55.23	53.63	$55.50	1.444	1.431	$1.374
General contractors	37.9	36.7	40.0	52.39	50.43	52.48	1.384	1.374	1.312
Special building trades [5]	38.7	38.4	40.6	58.64	57.31	57.68	1.515	1.493	1.419
Plumbing and heating	39.2	39.6	41.2	59.07	58.92	56.34	1.508	1.489	1.366
Painting and decorating	38.1	37.9	41.2	58.86	57.09	60.20	1.545	1.506	1.463
Electrical work	41.1	40.3	42.8	67.51	66.50	66.80	1.643	1.651	1.560
Masonry	37.7	37.0	38.5	54.72	53.08	52.58	1.453	1.434	1.367
Plastering and lathing	37.8	35.9	35.2	61.89	58.65	53.59	1.639	1.632	1.523
Carpentry	39.2	38.9	41.4	55.93	54.78	56.15	1.425	1.407	1.355
Roofing and sheet metal	37.4	36.7	38.8	50.53	48.61	53.33	1.350	1.325	1.374
Excavation and foundation	38.6	37.6	39.0	52.46	50.50	49.23	1.361	1.342	1.261
Nonbuilding construction	40.5	39.5	(4)	53.25	51.74	(4)	1.313	1.308	(4)
Highway and streets	41.0	39.3	(4)	53.37	49.58	(4)	1.303	1.261	(4)
Heavy construction	39.6	39.5	(4)	53.05	53.53	(4)	1.338	1.357	(4)
Other	42.0	40.0	(4)	53.52	50.50	(4)	1.275	1.264	(4)

[1] Includes all firms reporting during the month shown.
[2] Hourly earnings when multiplied by weekly hours of work may not exactly equal weekly earnings because of rounding.
[3] Revised.
[4] Not available prior to February 1946.
[5] Includes types not shown separately.

Detailed Reports for Industrial and Business Employment, June 1946

MONTHLY reports on employment and pay rolls are presented below for more than 150 manufacturing industries and for 27 nonmanufacturing industries including water transportation and class 1 steam railroads. Data for both manufacturing and nonmanufacturing industries are based on reports of the number of employees and amount of pay rolls for the period ending nearest the 15th of the month.

TABLE 1.—*Estimated Number of Production Workers in Manufacturing Industries* [1]

Industry group and industry	Estimated number of production workers (in thousands)			
	June 1946	May 1946	Apr. 1946	June 1945
All manufacturing	11,408	11,218	11,130	12,855
Durable goods	5,707	5,583	5,474	7,382
Nondurable goods	5,701	5,635	5,656	5,473
Durable goods				
Iron and steel and their products	1,339	1,316	1,334	1,630
Blast furnaces, steel works, and rolling mills [2]	453.1	445.4	465.8	470.0
Gray-iron and semisteel castings	78.5	77.5	78.0	71.4
Malleable-iron castings	23.7	22.6	22.5	24.2
Steel castings	50.8	50.8	50.0	64.2
Cast-iron pipe and fittings	16.1	17.1	17.4	16.0
Tin cans and other tinware	41.9	39.8	37.2	42.3
Wire drawn from purchased rods	22.5	21.2	22.5	31.1
Wirework	34.3	34.9	34.5	31.8
Cutlery and edge tools	25.6	25.1	23.6	22.9
Tools (except edge tools, machine tools, files, and saws)	25.0	24.6	23.1	26.2
Hardware	44.9	44.4	43.4	44.5
Plumbers' supplies	25.6	24.4	24.3	22.2
Stoves, oil burners, and heating equipment, not elsewhere classified	51.9	50.1	49.8	58.4
Steam and hot-water heating apparatus and steam fittings	45.1	44.2	43.8	50.1
Stamped and enameled ware and galvanizing	72.6	71.2	70.3	83.5
Fabricated structural and ornamental metalwork	48.2	47.4	46.1	59.7
Metal doors, sash, frames, molding, and trim	8.6	8.1	8.2	8.8
Bolts, nuts, washers, and rivets	17.4	17.4	20.5	23.1
Forgings, iron and steel	26.0	26.2	25.9	33.0
Wrought pipe, welded and heavy riveted	10.7	11.9	13.3	22.6
Screw-machine products and wood screws	27.2	26.9	27.0	39.7
Steel barrels, kegs, and drums	5.5	5.4	5.0	8.5
Firearms	12.9	13.3	13.0	24.0
Electrical machinery	505	489	445	691
Electrical equipment	279.6	270.3	235.6	403.1
Radios and phonographs	77.6	74.7	71.6	110.3
Communication equipment	86.0	84.6	83.6	101.1
Machinery, except electrical	1,011	988	948	1,143
Machinery and machine-shop products	347.2	344.7	344.0	424.1
Engines and turbines	40.8	36.9	34.5	61.9
Tractors	49.2	47.0	40.7	54.2
Agricultural machinery, excluding tractors	40.6	41.0	30.3	41.6
Machine tools	59.3	59.0	59.5	71.5
Machine-tool accessories	48.4	46.8	47.0	61.3
Textile machinery	32.1	31.9	27.6	25.8
Pumps and pumping equipment	54.7	52.9	51.7	66.4
Typewriters	18.3	17.8	17.3	13.0
Cash registers, adding and calculating machines	33.0	32.1	31.1	28.3
Washing machines, wringers and driers, domestic	10.7	10.0	10.0	11.5
Sewing machines, domestic and industrial	9.5	9.2	9.1	10.3
Refrigerators and refrigeration equipment	56.7	54.0	49.9	47.6
Transportation equipment, except automobiles	464	473	486	1,681
Locomotives	26.5	27.1	26.2	32.3
Cars, electric- and steam-railroad	43.1	45.2	43.3	58.2
Aircraft and parts, excluding aircraft engines	126.2	123.5	120.6	509.3
Aircraft engines	26.0	26.1	26.1	173.4
Shipbuilding and boatbuilding	184.7	193.2	212.5	738.7
Motorcycles, bicycles, and parts	10.3	10.0	9.0	9.5

See footnotes at end of table.

TABLE 1.—*Estimated Number of Production Workers in Manufacturing Industries* [1]—Continued

Industry group and industry	Estimated number of production workers (in thousands)			
	June 1946	May 1946	Apr. 1946	June 1945
Durable goods—Continued				
Automobiles	669	651	623	642
Nonferrous metals and their products	361	344	337	409
Smelting and refining, primary, of nonferrous metals	29.2	27.7	27.8	38.9
Alloying and rolling and drawing of nonferrous metals, except aluminum [2]	57.4	52.4	51.7	68.1
Clocks and watches	26.7	25.9	26.0	24.3
Jewelry (precious metals) and jewelers' findings	17.1	17.0	16.9	13.2
Silverware and plated ware	13.8	13.6	13.4	10.9
Lighting equipment	28.1	25.5	24.7	25.4
Aluminum manufactures	45.9	44.6	42.6	66.8
Sheet-metal work, not elsewhere classified	24.7	24.5	23.8	31.1
Lumber and timber basic products	594	576	558	523
Sawmills and logging camps	227.0	221.7	215.1	217.1
Planing and plywood mills	70.2	68.6	67.8	67.9
Furniture and finished lumber products	374	365	366	341
Mattresses and bedsprings	20.2	18.7	18.5	17.7
Furniture	160.2	156.6	156.6	147.5
Wooden boxes, other than cigar	24.6	24.6	24.6	26.1
Caskets and other morticians' goods	13.2	12.9	13.3	11.8
Wood preserving	11.6	11.8	12.0	10.0
Wood, turned and shaped	22.8	22.6	22.8	21.2
Stone, clay, and glass products	390	381	377	322
Glass and glassware	101.3	101.7	102.6	88.4
Glass products made from purchased glass	13.0	12.5	12.2	11.0
Cement	27.4	25.9	25.1	16.9
Brick, tile, and terra cotta	58.8	57.7	55.9	41.5
Pottery and related products	45.4	43.5	44.2	38.6
Gypsum	5.1	5.1	5.2	4.0
Wallboard, plaster (except gypsum), and mineral wool	10.5	9.9	9.9	9.3
Lime	8.6	8.6	8.6	7.6
Marble, granite, slate, and other products	16.6	16.0	15.8	13.1
Abrasives	18.6	18.3	17.9	21.2
Asbestos products	20.4	19.0	18.4	19.3
Nondurable goods				
Textile-mill products and other fiber manufactures	1,199	1,185	1,183	1,071
Cotton manufactures, except smallwares	447.7	443.1	443.4	413.8
Cotton smallwares	14.1	14.2	14.3	13.4
Silk and rayon goods	91.8	90.7	90.4	86.4
Woolen and worsted manufactures, except dyeing and finishing	160.1	159.3	159.1	140.4
Hosiery	114.3	112.7	112.4	97.0
Knitted cloth	11.2	11.0	11.1	10.1
Knitted outerwear and knitted gloves	31.3	31.3	31.3	27.4
Knitted underwear	35.3	34.5	34.7	33.6
Dyeing and finishing textiles, including woolen and worsted	63.7	63.1	63.3	57.2
Carpets and rugs, wool	24.0	23.5	23.1	19.5
Hats, fur-felt	11.0	11.0	10.9	8.9
Jute goods, except felts	3.9	3.7	3.9	3.2
Cordage and twine	15.3	15.2	14.4	14.3
Apparel and other finished textile products	1,031	1,013	1,018	915
Men's clothing, not elsewhere classified	195.4	192.0	191.0	196.3
Shirts, collars, and nightwear	53.9	52.8	52.0	48.5
Underwear and neckwear, men's	11.7	11.8	11.9	11.9
Work shirts	13.7	13.3	13.3	14.5
Women's clothing, not elsewhere classified	212.6	212.5	217.5	193.8
Corsets and allied garments	16.2	15.9	15.8	14.0
Millinery	16.5	17.1	20.2	16.0
Handkerchiefs	2.3	2.3	2.3	2.4
Curtains, draperies, and bedspreads	13.4	12.6	12.2	10.7
Housefurnishings, other than curtains, etc	10.6	10.5	10.6	11.2
Textile bags [2]	13.9	12.4	12.5	14.9
Leather and leather products	358	356	356	317
Leather	43.0	43.3	43.8	39.1
Boot and shoe cut stock and findings	18.1	18.2	17.8	16.2
Boots and shoes	194.2	192.8	192.9	171.5
Leather gloves and mittens	11.5	11.5	11.7	11.7
Trunks and suitcases	14.0	13.9	13.9	12.7

See footnotes at end of table.

TABLE 1.—*Estimated Number of Production Workers in Manufacturing Industries* [1]—Continued

Industry group and industry	Estimated number of production workers (in thousands)			
	June 1946	May 1946	Apr. 1946	June 1945
***Nondurable goods*—Continued**				
Food	1,020	1,011	1,023	1,029
Slaughtering and meat packing	128.3	136.1	138.8	127.7
Butter	26.2	25.3	23.7	25.3
Condensed and evaporated milk	15.7	14.7	13.9	16.4
Ice cream	19.8	18.5	17.8	16.9
Flour	26.9	27.2	29.3	29.6
Feeds, prepared	22.1	22.1	21.6	22.4
Cereal preparations	9.9	10.0	10.1	9.3
Baking	234.2	238.9	247.4	254.7
Sugar refining, cane	14.3	13.6	13.4	14.0
Sugar, beet	4.7	4.8	4.6	4.3
Confectionery	47.7	48.9	51.7	53.7
Beverages, nonalcoholic	24.9	24.0	23.9	26.4
Malt liquors	50.9	50.0	50.5	51.6
Canning and preserving	110.7	94.7	92.0	106.0
Tobacco manufactures	86	85	85	80
Cigarettes	33.6	33.3	33.0	33.9
Cigars	39.2	38.9	38.8	33.0
Tobacco (chewing and smoking) and snuff	7.3	7.1	7.1	8.3
Paper and allied products	364	359	357	315
Paper and pulp	167.5	165.0	163.9	144.2
Paper goods, other	46.4	46.3	46.3	43.4
Envelopes	10.5	10.2	10.3	9.4
Paper bags	14.3	14.1	14.2	12.7
Paper boxes	86.6	85.2	84.6	76.7
Printing, publishing, and allied industries	379	375	374	320
Newspapers and periodicals	129.9	129.3	128.3	109.4
Printing, book and job	156.4	153.3	154.4	131.1
Lithographing	28.7	28.4	28.2	24.1
Bookbinding	31.4	31.1	30.8	27.3
Chemicals and allied products	476	481	493	671
Paints, varnishes, and colors	35.3	35.1	35.2	29.0
Drugs, medicines, and insecticides	51.4	51.4	51.4	50.2
Perfumes and cosmetics	12.1	12.2	12.4	12.3
Soap	14.1	14.0	14.0	13.1
Rayon and allied products	58.4	58.4	59.0	53.8
Chemicals, not elsewhere classified	117.5	116.5	118.0	114.7
Explosives and safety fuses	12.2	12.7	14.5	94.6
Compressed and liquefied gases	5.8	5.8	5.6	6.0
Ammunition, small-arms	7.6	7.6	7.7	64.3
Fireworks	3.3	3.3	2.8	20.0
Cottonseed oil	9.0	9.9	11.9	12.0
Fertilizers	20.4	24.7	29.1	20.9
Products of petroleum and coal	148	145	146	135
Petroleum refining	99.1	97.9	97.4	92.7
Coke and byproducts	23.8	22.7	24.5	21.8
Paving materials	2.0	2.0	2.0	1.7
Roofing materials	11.8	11.6	11.4	9.4
Rubber products	225	221	220	199
Rubber tires and inner tubes	106.0	104.7	104.4	90.2
Rubber boots and shoes	18.1	17.8	17.5	17.0
Rubber goods, other	68.4	67.0	67.2	67.9
Miscellaneous industries	415	404	401	421
Instruments (professional and scientific) and fire-control equipment	21.7	21.8	22.4	56.6
Photographic apparatus	24.5	24.0	23.4	27.0
Optical instruments and ophthalmic goods	21.3	21.2	21.2	22.7
Pianos, organs, and parts	9.0	8.7	8.5	8.0
Games, toys, and dolls	20.9	20.6	20.2	15.1
Buttons	10.1	10.1	10.2	9.2
Fire extinguishers	2.0	2.0	2.1	4.3

[1] Estimates for the major industry groups have been adjusted to levels indicated by the final 1944 data made available by the Bureau of Employment Security of the Federal Security Agency. Estimates for individual industries have been adjusted to levels indicated by the 1939 Census of Manufactures but not to Federal Security Agency data. For this reason, together with the fact that this Bureau has not prepared estimates for certain industries, the sum of the individual industry estimates will not agree with the totals shown for the major industry groups.

[1] Revisions have been made as follows in data for earlier months:

Blast furnaces, steel works and rolling mills.—March 1946 production workers to 453.8.

Alloying and rolling and drawing of nonferrous metals except aluminum.—February and March 1946 production workers to 41.7 and 43.8.

Textile bags.—March 1946 production workers to 12.6.

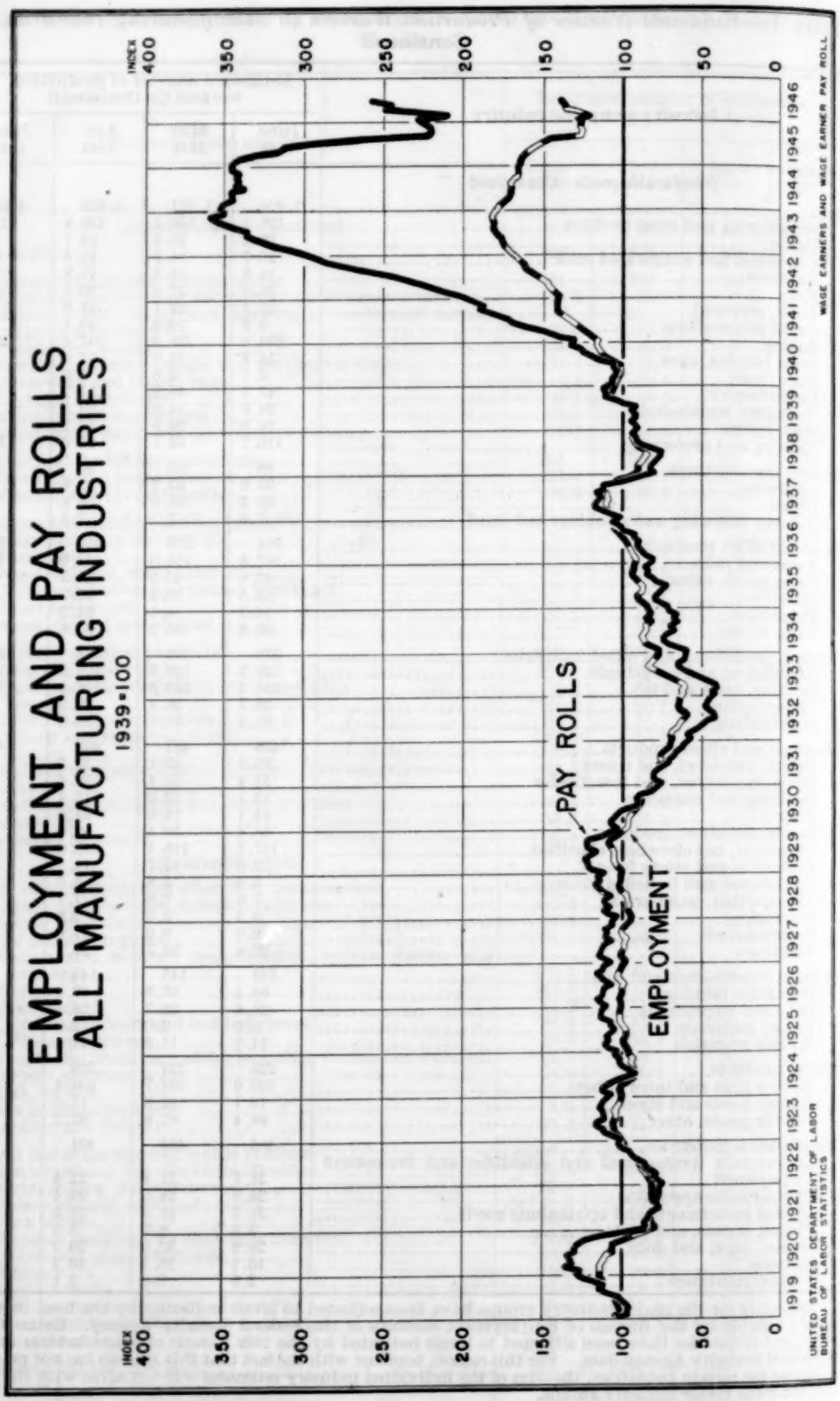

EMPLOYMENT AND PAY ROLLS
ALL MANUFACTURING INDUSTRIES
1939=100
INDEX
400
350
300
250
200
150
100
50
0
PAY ROLLS
EMPLOYMENT
1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1935 1936 1937 1938 1939 1940 1941 1942 1943 1944 1945 1946
UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
WAGE EARNERS AND WAGE EARNER PAY ROLL

TABLE 2.—*Indexes of Production-Worker Employment and Pay Rolls in Manufacturing Industries* [1]

[1939 average=100]

Industry group and industry	Employment indexes				Pay-roll indexes			
	June 1946	May 1946	Apr. 1946	June 1945	June 1946	May 1946	Apr. 1946	June 1945
All manufacturing	139.3	136.9	135.9	156.9	257.2	248.1	249.2	314.6
Durable goods	158.0	154.6	151.6	204.4	280.9	267.2	267.3	414.2
Nondurable goods	124.4	123.0	123.5	119.5	234.0	229.5	231.4	217.3
Durable goods								
Iron and steel and their products	135.0	132.8	134.5	164.4	229.1	221.4	231.6	308.3
Blast furnaces, steel works, and rolling mills [2]	116.6	114.7	119.9	121.0	181.2	175.8	193.3	222.8
Gray-iron and semisteel castings	134.3	132.6	133.5	122.2	265.8	255.0	262.0	250.0
Malleable-iron castings	131.4	125.1	124.6	134.0	260.9	231.9	243.9	277.7
Steel castings	168.9	168.7	166.1	213.3	292.1	290.9	292.7	386.9
Cast-iron pipe and fittings	97.6	103.2	105.2	96.7	195.1	198.4	198.7	198.5
Tin cans and other tinware	132.0	125.3	117.0	133.2	234.7	206.7	206.0	229.8
Wire drawn from purchased rods	102.3	96.7	102.2	141.6	159.5	145.8	153.6	231.4
Wirework	112.7	114.9	113.4	104.6	210.7	204.3	213.7	204.2
Cutlery and edge tools	166.3	162.7	153.2	148.7	355.7	347.0	318.5	306.4
Tools (except edge tools, machine tools, files, and saws)	163.2	160.9	150.8	171.4	314.1	306.0	281.5	326.4
Hardware	126.0	124.6	121.6	124.9	239.3	236.4	230.4	261.3
Plumbers' supplies	104.1	99.0	98.5	90.1	175.5	166.7	167.9	164.0
Stoves, oil burners, and heating equipment, not elsewhere classified	112.6	108.6	108.0	126.6	206.3	191.6	194.6	242.3
Steam and hot-water heating apparatus and steam fittings	148.8	145.9	144.5	165.2	265.7	263.7	262.8	320.4
Stamped and enameled ware and galvanizing	130.7	128.1	126.5	150.4	250.4	242.3	239.8	304.1
Fabricated structural and ornamental metalwork	135.7	133.5	129.8	168.0	229.5	226.2	222.3	317.8
Metal doors, sash, frames, molding, and trim	110.7	104.7	106.1	113.4	187.6	185.7	194.4	222.2
Bolts, nuts, washers, and rivets	121.9	121.6	143.6	161.7	202.3	188.4	231.9	326.7
Forgings, iron and steel	169.3	170.4	168.4	214.9	293.1	286.4	294.9	422.4
Wrought pipe, welded and heavy riveted	127.6	141.6	159.4	270.1	207.5	233.9	278.1	593.6
Screw-machine products and wood screws	160.7	159.2	159.4	234.5	303.9	295.0	301.0	463.5
Steel barrels, kegs, and drums	90.4	89.5	82.1	139.2	177.3	178.6	166.0	308.5
Firearms	257.6	266.7	260.1	479.3	501.4	510.9	490.1	1057.0
Electrical machinery	195.0	188.8	171.5	266.6	337.6	314.5	286.1	490.0
Electrical equipment	154.7	149.5	130.4	223.0	260.5	248.2	209.0	415.1
Radios and phonographs	178.4	171.6	164.5	253.5	331.4	312.3	299.6	486.3
Communication equipment	267.8	263.6	260.2	314.9	478.6	414.6	454.5	532.2
Machinery, except electrical	191.3	187.0	179.3	216.3	329.5	312.2	301.6	407.0
Machinery and machine-shop products	171.6	170.4	170.0	209.6	297.7	286.5	290.1	386.4
Engines and turbines	218.5	197.9	185.1	332.0	415.5	369.9	312.0	679.9
Tractors	157.4	150.2	130.1	173.2	235.3	191.6	178.4	278.2
Agricultural machinery, excluding tractors	146.1	147.4	108.9	149.5	248.1	227.7	174.7	306.3
Machine tools	161.9	161.1	162.3	195.2	270.4	259.6	261.4	353.4
Machine-tool accessories	192.3	186.2	186.7	243.7	301.4	287.3	284.2	421.5
Textile machinery	146.5	145.5	126.0	118.0	265.5	269.5	238.4	227.7
Pumps and pumping equipment [2]	225.5	218.5	213.4	274.0	416.1	401.6	377.5	584.7
Typewriters	113.1	110.1	106.4	80.4	211.8	208.7	200.8	167.7
Cash registers, adding and calculating machines	167.9	163.3	158.1	143.9	309.0	295.4	281.8	278.5
Washing machines, wringers and driers, domestic	144.0	133.4	133.6	153.6	238.7	193.7	215.7	281.8
Sewing machines, domestic and industrial	121.2	117.9	115.6	131.1	226.1	216.0	215.1	271.4
Refrigerators and refrigeration equipment	161.1	153.6	141.9	135.3	256.6	252.8	232.3	242.6
Transportation equipment, except automobiles	292.6	298.1	306.4	1059.1	545.5	538.3	558.1	2223.5
Locomotives	409.1	418.8	405.1	499.7	842.8	819.5	793.5	1086.4
Cars, electric- and steam-railroad	175.9	184.3	176.4	237.3	325.5	330.8	322.7	472.0
Aircraft and parts, excluding aircraft engines	318.0	311.2	303.9	1283.6	589.9	565.9	553.2	2546.2
Aircraft engines	292.3	294.0	293.1	1949.7	469.4	469.2	457.8	3231.9
Shipbuilding and boatbuilding	266.7	279.0	306.9	1066.8	496.8	498.5	555.2	2327.7
Motorcycles, bicycles, and parts	147.1	143.0	129.3	135.9	250.2	239.9	219.1	257.6
Automobiles	166.2	161.9	154.8	159.4	252.0	234.1	241.7	281.6
Nonferrous metals and their products	157.7	149.9	146.9	178.4	286.1	268.9	264.9	337.9
Smelting and refining, primary, of nonferrous metals	105.6	100.2	100.8	140.6	187.4	172.2	173.1	262.1
Alloying and rolling and drawing of nonferrous metals, except aluminum [2]	147.9	134.9	133.1	175.5	270.9	239.6	232.6	328.4

See footnotes at end of table.

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1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1935 1936 1937 1938 1939 1940 1941 1942 1943 1944 1945 1946
UNITED STATES DEPARTMENT OF LABOR BUREAU OF LABOR STATISTICS
WAGE EARNERS AND WAGE EARNER PAY ROLL

TABLE 2.—*Indexes of Production-Worker Employment and Pay Rolls in Manufacturing Industries* [1]—Continued

[1939 average=100]

Industry group and industry	Employment indexes				Pay roll indexes			
	June 1946	May 1946	Apr. 1946	June 1945	June 1946	May 1946	Apr. 1946	June 1945
Durable goods—Continued								
Nonferrous metals and their products—Continued								
Clocks and watches	131.6	128.4	127.9	119.9	259.1	254.4	253.0	251.7
Jewelry (precious metals) and jewelers' findings	118.7	117.6	116.9	91.2	218.9	218.6	219.3	162.6
Silverware and plated ware	113.8	112.1	110.8	90.0	221.4	217.1	219.7	162.1
Lighting equipment	137.4	124.7	120.8	124.2	234.0	210.6	208.0	232.2
Aluminum manufactures	194.9	189.3	180.7	283.5	326.3	320.9	311.5	497.4
Sheet-metal work, not elsewhere classified	131.7	130.6	127.2	166.0	247.9	240.6	238.9	323.8
Lumber and timber basic products	141.3	137.0	132.6	124.5	280.4	261.8	248.2	239.7
Sawmills and logging camps	78.8	77.0	74.7	75.4	157.6	147.2	139.8	147.6
Planing and plywood mills	96.7	94.5	93.3	93.4	183.3	175.3	169.7	167.4
Furniture and finished lumber products	114.1	111.4	111.5	103.9	223.5	212.3	214.6	195.9
Mattresses and bedsprings	110.1	102.1	100.9	96.3	199.8	171.9	177.1	176.1
Furniture	100.6	98.4	98.4	92.7	196.2	188.3	189.7	173.3
Wooden boxes, other than cigar	97.2	97.2	96.9	102.9	203.0	196.4	200.5	212.4
Caskets and other morticians' goods	105.9	103.4	107.0	95.0	191.2	181.5	185.2	165.0
Wood preserving	103.5	104.8	106.9	88.7	231.4	221.3	228.0	197.5
Wood, turned and shaped	103.6	102.6	103.8	96.5	208.1	202.1	202.0	180.3
Stone, clay, and glass products	132.9	129.7	128.4	109.6	236.6	225.6	226.0	189.8
Glass and glassware	145.2	145.7	147.0	126.6	242.4	243.2	249.7	200.8
Glass products made from purchased glass	129.7	125.1	121.9	109.7	236.4	229.8	216.5	190.2
Cement	115.1	108.6	105.4	71.1	184.5	176.6	171.6	120.8
Brick, tile, and terra cotta	103.6	101.6	98.5	73.0	195.6	180.0	181.3	126.2
Pottery and related products	137.0	131.5	133.6	116.5	238.9	214.9	218.9	186.1
Gypsum	104.2	103.0	105.2	81.9	191.3	178.8	184.8	142.8
Wallboard, plaster (except gypsum), and mineral wool	128.9	122.4	121.9	114.1	255.5	231.5	227.3	213.8
Lime	91.2	91.3	90.7	80.2	194.3	187.4	198.1	164.3
Marble, granite, slate, and other products	89.6	86.6	85.2	70.7	144.6	143.1	138.7	114.4
Abrasives	241.0	236.3	231.0	273.5	399.1	376.6	361.9	492.0
Asbestos products	128.4	119.5	115.6	121.3	267.3	243.6	233.1	254.8
Nondurable goods								
Textile-mill products and other fiber manufactures	104.8	103.6	103.4	93.6	218.6	214.8	215.8	177.3
Cotton manufactures, except smallwares	113.0	111.9	112.0	104.5	248.2	244.3	246.3	210.3
Cotton smallwares	105.9	106.4	107.4	100.6	207.0	201.1	210.7	198.4
Silk and rayon goods	76.6	75.7	75.4	72.1	166.8	166.9	166.5	142.1
Woolen and worsted manufactures, except dyeing and finishing	107.3	106.7	106.6	94.1	238.5	237.7	238.5	186.7
Hosiery	71.9	70.9	70.7	61.0	133.0	130.8	130.6	100.0
Knitted cloth	102.5	100.6	101.9	92.1	213.2	201.8	208.0	168.6
Knitted outerwear and knitted gloves	111.2	111.4	111.3	97.6	235.5	237.4	232.0	189.4
Knitted underwear	91.6	89.4	90.0	87.2	189.9	179.8	182.3	166.4
Dyeing and finishing textiles, including woolen and worsted	95.2	94.4	94.7	85.6	184.5	175.4	179.2	147.3
Carpets and rugs, wool	93.7	91.8	90.4	76.2	169.5	163.3	159.9	137.4
Hats, fur-felt	75.7	75.4	75.2	61.3	160.0	160.3	165.1	112.5
Jute goods, except felts	108.1	104.2	108.2	89.4	224.5	216.3	224.6	176.0
Cordage and twine	126.8	125.5	118.7	118.0	241.9	235.4	226.7	230.4
Apparel and other finished textile products	130.6	128.3	128.9	115.9	263.3	258.8	263.5	207.6
Men's clothing, not elsewhere classified	89.4	87.8	87.4	89.8	181.2	175.6	174.1	164.2
Shirts, collars, and nightwear	76.5	74.9	73.8	68.9	159.6	156.5	152.9	125.8
Underwear and neckwear, men's	72.5	72.8	73.6	73.4	168.2	165.3	165.3	153.7
Work shirts	101.6	98.9	99.1	107.8	213.3	206.2	206.2	208.0
Women's clothing, not elsewhere classified	78.3	78.2	80.1	71.3	159.8	163.1	169.6	125.1
Corsets and allied garments	86.4	84.9	84.0	74.5	167.6	161.5	163.2	134.6
Millinery	68.0	70.4	83.0	65.9	105.0	99.0	142.7	92.7
Handkerchiefs	47.4	47.4	47.7	50.5	98.8	100.1	99.0	96.2
Curtains, draperies, and bedspreads	79.1	74.3	72.4	63.3	173.5	161.3	152.4	135.8
Housefurnishings, other than curtains, etc.	99.8	98.8	99.8	105.7	183.0	193.6	200.2	195.6
Textile bags [2]	115.9	103.3	104.3	124.3	207.4	177.1	180.0	212.9
Leather and leather products	103.1	102.6	102.5	91.3	203.4	203.1	203.9	173.1
Leather	90.9	91.7	92.6	82.7	163.0	158.5	164.8	149.3
Boot and shoe cut stock and findings	96.0	96.5	94.3	86.0	173.3	173.3	168.6	152.5
Boots and shoes	89.1	88.4	88.5	78.7	183.0	184.6	185.3	154.1
Leather gloves and mittens	115.1	114.8	116.7	116.8	222.9	215.0	211.7	211.9
Trunks and suitcases	168.2	166.8	166.8	152.2	314.7	308.9	302.4	255.9

See footnotes at end of table.

TABLE 2.—*Indexes of Production-Worker Employment and Pay Rolls in Manufacturing Industries* [1]—Continued

[1939 average = 100]

Industry group and industry	Employment indexes				Pay-roll indexes			
	June 1946	May 1946	Apr. 1946	June 1945	June 1946	May 1946	Apr. 1946	June 1945
Nondurable goods—Continued								
Food	119.3	118.3	119.8	120.4	205.6	202.5	205.4	202.6
Slaughtering and meat packing	106.5	112.9	115.2	106.0	167.4	181.4	180.9	177.9
Butter	146.2	141.1	132.3	141.2	258.7	244.1	225.6	231.1
Condensed and evaporated milk	162.1	151.7	142.9	169.2	311.3	281.6	258.9	302.2
Ice cream	126.3	117.8	113.1	107.9	203.6	185.7	172.6	156.0
Flour	108.7	109.7	118.2	119.3	190.9	181.5	202.5	211.0
Feeds, prepared	143.4	143.6	140.2	145.1	251.5	259.3	246.5	258.4
Cereal preparations	132.8	134.0	134.9	124.7	238.1	221.2	232.9	231.0
Baking	101.5	103.5	107.3	110.4	168.8	170.8	179.3	174.1
Sugar refining, cane	100.7	96.1	94.8	99.1	163.0	155.0	145.5	155.1
Sugar, beet	45.2	46.1	44.4	41.6	70.6	73.6	71.4	65.1
Confectionery	95.8	98.2	103.9	108.0	181.0	173.6	192.5	187.4
Beverages, nonalcoholic	117.1	113.0	112.2	124.4	172.1	160.4	158.6	169.7
Malt liquors	141.1	138.5	139.8	143.1	210.1	201.0	194.9	219.9
Canning and preserving	82.3	70.4	68.4	78.8	180.4	149.8	149.2	156.9
Tobacco manufactures	92.1	91.2	90.8	86.1	184.1	181.1	174.6	164.5
Cigarettes	122.6	121.4	120.4	123.5	217.8	216.6	204.6	204.4
Cigars	77.0	76.5	76.3	64.8	167.8	164.2	162.2	136.8
Tobacco (chewing and smoking) and snuff	79.3	77.1	77.7	90.5	135.7	129.2	122.9	150.2
Paper and allied products	137.3	135.3	134.5	118.5	243.8	237.4	235.9	202.0
Paper and pulp	121.9	120.0	119.3	104.9	215.8	211.9	209.9	183.8
Paper goods, other	123.4	123.1	123.0	115.2	218.1	211.8	212.0	192.5
Envelopes	120.4	117.9	119.0	108.3	210.0	201.3	200.4	172.0
Paper bags	128.9	127.5	128.2	115.0	233.9	220.6	228.2	198.2
Paper boxes	125.2	123.2	122.3	110.9	225.5	216.7	216.4	182.8
Printing, publishing, and allied industries	115.7	114.3	114.2	97.5	184.2	179.5	178.9	139.6
Newspapers and periodicals	109.4	109.0	108.1	92.2	162.0	160.9	157.8	121.7
Printing, book and job	123.8	121.3	122.2	103.8	204.6	197.0	199.9	155.6
Lithographing	110.2	109.1	108.6	92.6	176.3	170.4	169.5	137.5
Bookbinding	121.8	120.9	119.6	106.0	247.7	236.8	232.6	186.3
Chemicals and allied products	165.1	166.8	170.9	232.8	285.1	283.8	291.2	417.6
Paints, varnishes, and colors	125.3	124.9	125.2	103.1	199.7	194.2	197.1	171.2
Drugs, medicines, and insecticides	187.5	187.6	187.4	183.1	305.8	304.5	301.8	283.7
Perfumes and cosmetics	117.1	117.6	119.4	118.4	186.7	185.1	187.3	171.4
Soap	103.5	103.3	103.5	96.6	172.8	166.6	168.1	163.1
Rayon and allied products	121.0	120.9	122.2	111.4	198.3	199.7	200.5	185.5
Chemicals, not elsewhere classified	169.0	167.5	169.6	164.8	283.0	277.8	282.7	298.5
Explosives and safety fuses	168.7	175.8	199.4	1304.3	265.9	266.7	307.4	1984.3
Compressed and liquefied gases	146.2	145.6	141.7	150.3	239.4	236.4	229.8	264.6
Ammunition, small-arms	178.0	177.3	180.7	1507.7	331.3	318.8	341.7	3037.4
Fireworks	284.5	283.6	241.1	1729.8	708.2	677.6	587.5	4789.5
Cottonseed oil	59.4	65.1	78.2	79.3	126.8	140.2	168.3	168.0
Fertilizers	108.6	131.6	155.2	111.5	252.9	300.9	362.6	258.8
Products of petroleum and coal	139.7	136.9	138.2	127.4	233.8	228.2	232.7	230.6
Petroleum refining	136.1	134.4	133.7	127.3	223.3	221.5	221.3	224.4
Coke and byproducts	109.9	104.6	112.9	100.3	183.9	168.7	193.2	181.7
Paving materials	83.7	80.5	80.3	69.8	170.4	159.1	156.2	144.3
Roofing materials	146.7	143.7	141.2	116.3	277.0	262.0	259.8	218.3
Rubber products	186.1	182.7	182.0	164.5	337.2	327.6	324.9	304.3
Rubber tires and inner tubes	195.8	193.4	192.8	166.7	318.3	314.2	312.9	293.8
Rubber boots and shoes	122.2	120.0	118.4	114.5	244.8	236.0	230.6	217.1
Rubber goods, other	132.2	129.4	129.8	131.2	254.4	241.4	240.6	242.7
Miscellaneous industries	169.4	165.0	163.7	171.9	315.6	300.5	301.6	337.5
Instruments (professional and scientific) and fire-control equipment	196.7	197.5	202.5	511.7	339.4	330.9	341.8	987.6
Photographic apparatus	141.6	138.8	135.6	156.5	233.3	221.2	220.2	262.5
Optical instruments and ophthalmic goods	183.0	182.8	182.6	195.6	314.2	303.6	310.9	335.6
Piano, organs, and parts	117.9	114.2	111.1	105.2	219.6	205.4	201.8	207.4
Games, toys, and dolls	112.0	110.2	108.3	81.1	222.7	220.9	207.5	161.9
Buttons	92.5	92.0	93.1	83.5	196.7	189.7	189.6	171.0
Fire extinguishers	200.8	197.1	206.6	435.5	405.8	408.4	426.2	988.6

[1] Indexes for the major industry groups have been adjusted to levels indicated by the final 1944 data made available by the Bureau of Employment Security of the Federal Security Agency.

[2] Revisions have been made as follows in the indexes for earlier months:

Blast furnaces, steel works and rolling mills.—March 1946 employment index to 116.8; pay-roll index to 189.1.

Pumps and pumping equipment.—January, February, and March 1946 pay-roll indexes to 394.6, 350.0, and 359.3.

Alloying and rolling and drawing of nonferrous metals, except aluminum.—February and March 1946 employment indexes to 107.4 and 112.9; January, February, and March 1946 pay-roll indexes to 253.9, 191.8, and 199.7.

Textile bags.—March 1946 employment index to 104.7.

TABLE 3.—*Estimated Number of Employees in Selected Nonmanufacturing Industries*

Industry group and industry	Estimated number of employees (in thousands)			
	June 1946	May 1946	April 1946	June 1945
Mining:[1]				
Anthracite	66.1	67.0	67.4	65.3
Bituminous coal	332	259	74.5	331
Metal	63.7	58.2	53.3	67.0
Iron	24.9	18.7	14.2	24.2
Copper	14.7	15.5	15.3	20.9
Lead and zinc	14.7	14.6	14.4	14.0
Gold and silver	7.1	7.1	7.2	5.2
Miscellaneous	2.3	2.3	2.2	2.7
Telephone	545	532	519	411
Telegraph [2]	42.2	42.7	45.1	44.4
Electric light and power	244	241	239	202
Street railways and busses	248	247	246	227
Hotels (year-round)	387	387	383	353
Power laundries	(3)	(3)	(3)	(3)
Cleaning and dyeing	(3)	(3)	(3)	(3)
Class I steam railroads [4]	1,330	1,307	1,346	1,454
Water transportation [5]	120	131	144	159

[1] Data are for production workers only.
[2] Excludes messengers, and approximately 6,000 employees of general and divisional headquarters, and of cable companies.
[3] The change in definition from "wage earner" to "production worker" in the power laundries and cleaning and dyeing industries results in the omission of driver-salesmen. This causes a significant difference in the data. New series are being prepared.
[4] Source: Interstate Commerce Commission.
[5] Based on estimates prepared by the U. S. Maritime Commission covering employment on active deep-sea American-flag steam and motor merchant vessels of 1,000 gross tons and over. Excludes vessels under bareboat charter to or owned by the Army or Navy.

TABLE 4.—*Indexes of Employment and Pay Rolls in Selected Nonmanufacturing Industries*

[1939 average = 100]

Industry group and industry	Employment indexes				Pay-roll indexes			
	June 1946	May 1946	Apr. 1946	June 1945	June 1946	May 1946	Apr. 1946	June 1945
Mining:								
Anthracite	79.8	81.0	81.4	78.9	185.7	180.4	165.1	145.4
Bituminous coal	89.5	69.8	20.1	89.2	244.2	102.6	26.0	227.6
Metal	72.2	66.0	60.4	76.0	119.1	101.2	96.5	128.5
Iron	123.1	92.9	70.5	120.3	203.5	120.5	107.9	215.6
Copper	61.8	65.2	64.1	87.7	106.8	110.6	99.8	151.0
Lead and zinc	94.7	94.0	92.5	90.3	180.5	179.8	184.0	171.0
Gold and silver	28.8	28.6	29.1	21.2	41.5	39.6	41.1	27.1
Miscellaneous	58.4	57.2	56.3	67.7	95.5	92.1	88.4	113.4
Quarrying and nonmetallic	98.9	95.7	93.8	80.5	206.8	189.9	192.5	158.8
Crude-petroleum production [1]	93.7	92.8	91.8	83.6	146.6	145.4	144.0	136.1
Public utilities:								
Telephone	171.7	167.6	163.5	129.5	259.9	254.0	246.1	172.6
Telegraph	112.1	113.5	119.8	117.9	174.9	175.6	179.5	175.3
Electric light and power	99.9	98.6	97.7	82.8	148.4	144.2	142.5	119.2
Street railways and busses	128.2	127.6	127.0	117.3	199.4	195.2	191.4	178.2
Wholesale trade	106.9	106.0	106.7	94.4	172.6	169.6	169.8	141.9
Retail trade	107.2	107.2	109.0	96.2	171.2	166.2	167.8	134.2
Food	103.5	105.0	106.3	101.0	170.0	166.1	165.7	142.8
General merchandise	121.0	121.9	125.3	111.2	188.8	180.5	186.2	148.3
Apparel	114.3	114.3	121.2	106.6	186.9	180.6	194.5	152.8
Furniture and housefurnishings	77.5	76.6	75.2	62.2	125.7	123.1	118.3	89.9
Automotive	91.3	90.0	88.7	68.3	152.9	148.7	146.0	105.3
Lumber and building materials	109.4	107.7	106.6	92.4	177.2	173.5	172.1	137.9
Hotels (year-round) [2]	119.9	119.9	118.9	109.5	205.0	204.6	201.1	171.5
Power laundries	112.3	110.7	110.0	107.2	190.9	186.2	183.3	166.3
Cleaning and dyeing	131.6	129.6	130.3	122.0	236.6	227.0	231.0	199.8
Class I steam railroads [3]	134.6	132.4	136.3	147.2	(4)	(4)	(4)	(4)
Water transportation [5]	229.0	250.6	275.3	303.0	467.4	486.3	509.0	744.5

[1] Does not include well drilling or rig building.
[2] Cash payments only; additional value of board, room, and tips, not included.
[3] Source: Interstate Commerce Commission.
[4] Not available.
[5] Based on estimates prepared by the U. S. Maritime Commission covering employment on active deep-sea American-flag steam and motor merchant vessels of 1,000 gross tons and over. Excludes vessels under bareboat charter to or owned by the Army or Navy.

Labor Turn-Over in Manufacturing, Mining, and Public Utilities, June 1946

THE total separation rate for workers in manufacturing industries was lower in June than in any other month since March 1942. Despite the relatively low separation rate of 56 per 1,000, the pattern of separations still approximated the wartime picture, with quits the dominant factor.

The quit rate in June of 39 per 1,000 was almost 5 times as high as the average in 1939, while the lay-off rate of 13 per 1,000 was only half as great as in 1939.

The rate of accessions, 65 per 1,000, while lower than in most of the war years, was higher than in the prewar period. The increase in the rate of accessions from 61 per 1,000 in May reflected, in part, the seasonal hiring of students and teachers.

TABLE 1.—*Monthly Labor Turn-Over Rates (per 100 Employees) in Manufacturing Industries* [1]

Class of turn-over and year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Total separation:												
1946	6.8	6.3	6.6	6.3	6.3	[2] 5.6						
1945	6.2	6.0	6.8	6.6	7.0	7.9	7.7	17.9	12.0	8.6	7.1	5.9
1943	7.1	7.1	7.7	7.5	6.7	7.1	7.6	8.3	8.1	7.0	6.4	6.6
1939	3.2	2.6	3.1	3.5	3.5	3.3	3.3	3.0	2.8	2.9	3.0	3.5
Quit:												
1946	4.3	3.9	4.2	4.3	4.2	[2] 3.9						
1945	4.6	4.3	5.0	4.8	4.8	5.1	5.2	6.2	6.7	5.6	4.7	4.0
1943	4.5	4.7	5.4	5.4	4.8	5.2	5.6	6.3	6.3	5.2	4.5	4.4
1939	.9	.6	.8	.8	.7	.7	.7	.8	1.1	.9	.8	.7
Discharge:												
1946	.5	.5	.4	.4	.4	[2] .3						
1945	.7	.7	.7	.6	.6	.7	.6	.7	.6	.5	.5	.4
1943	.5	.5	.6	.5	.6	.6	.7	.7	.6	.6	.6	.6
1939	.1	.1	.1	.1	.1	.1	.1	.1	.1	.2	.2	.1
Lay-off: [3]												
1946	1.8	1.7	1.8	1.4	1.5	[2] 1.3						
1945	.6	.7	.7	.8	1.2	1.7	1.5	10.7	4.5	2.3	1.7	1.3
1943	.7	.5	.5	.6	.5	.5	.5	.5	.5	.5	.7	1.0
1939	2.2	1.9	2.2	2.6	2.7	2.5	2.5	2.1	1.6	1.8	2.0	2.7
Military and miscellaneous: [4]												
1946	.2	.2	.2	.2	.2	[2] .1						
1945	.3	.3	.4	.4	.4	.4	.4	.3	.2	.2	.2	.2
1943	1.4	1.4	1.2	1.0	.8	.8	.8	.8	.7	.7	.6	.6
Accession:												
1946	8.5	6.8	7.1	6.7	6.1	[2] 6.5						
1945	7.0	5.0	4.9	4.7	5.0	5.9	5.8	5.9	7.4	8.6	8.7	6.9
1943	8.3	7.9	8.3	7.4	7.2	8.4	7.8	7.6	7.7	7.2	6.6	5.2
1939	4.1	3.1	3.3	2.9	3.3	3.9	4.2	5.1	6.2	5.9	4.1	2.8

[1] Month-to-month employment changes as indicated by labor turn-over rates are not precisely comparable to those shown by the Bureau's employment and pay-roll reports, as the former are based on data for the entire month while the latter refer, for the most part, to a one-week period ending nearest the middle of the month. In addition, labor turn-over data, beginning in January 1943, refer to all employees, whereas the employment and pay-roll reports relate only to production workers. The turn-over sample is not so extensive as that of the employment and pay-roll survey—proportionately fewer small plants are included; printing and publishing, and certain seasonal industries, such as canning and preserving, are not covered.

[2] Preliminary.

[3] Including temporary, indeterminate, and permanent lay-offs.

[4] Miscellaneous separations comprise not more than 0.1 in these figures. In 1939 these data were included with quits.

The hiring rate for women was higher than that for men for the second consecutive month. In the durable goods group women were hired at the rate of 74 per 1,000, as compared with a rate of 72 per 1,000 for men. In the nondurable goods group, where women are

employed in larger numbers, the difference was even more striking—women were hired at the rate of 67 per 1,000 as compared with 51 per 1,000 for men.

Women were separated from their jobs at the rate of 63 per 1,000, as compared with 54 per 1,000 for men. Quits were entirely responsible for the higher separation rate for women. The involuntary separation rate (lay-offs and discharges) was actually lower for women than for men in both the durable and nondurable goods groups.

TABLE 2.—*Monthly Labor Turn-Over Rates (per 100 Employees) in Selected Groups and Industries,*[1] *June 1946* [2]

Industry group and industry	Total separation		Quit		Discharge		Lay-off		Military and miscellaneous		Total accession	
	June	May	June	May	June	May	June	May	June	May	June	May
Manufacturing												
Durable goods	5.5	6.5	3.9	4.0	0.4	0.4	1.1	1.9	0.1	0.2	7.2	6.3
Nondurable goods	5.8	6.0	3.9	4.4	.3	.3	1.4	1.1	.2	.2	5.8	5.9
Iron and steel and their products	4.5	4.8	3.3	3.2	.3	.3	.7	1.1	.2	.2	6.2	4.7
Blast furnaces, steel works, and rolling mills	3.1	3.4	2.4	2.3	.1	.1	.5	.8	.1	.2	4.6	2.7
Gray-iron castings	7.4	8.1	5.9	5.9	.9	1.1	.3	.9	.3	.2	8.5	8.2
Malleable-iron castings	9.7	10.1	6.5	6.4	.5	.5	2.4	3.0	.3	.2	10.9	7.7
Steel castings	4.3	5.6	2.7	2.7	.4	.4	1.0	2.2	.2	.3	4.3	4.0
Cast-iron pipe and fittings	10.0	5.1	5.1	4.8	.4	.2	4.3	.1	.2	(3)	6.8	8.1
Tin cans and other tinware	9.3	8.0	7.5	6.1	1.5	1.0	.1	.8	.2	.1	15.0	10.8
Wire products	3.9	3.8	2.8	2.4	.3	.3	.5	.9	.3	.2	5.3	3.9
Cutlery and edge tools	4.9	6.7	3.4	5.2	.7	1.0	.8	.3	(3)	.2	5.8	8.9
Tools (except edge tools, machine tools, files, and saws)	3.8	5.7	3.1	4.7	.4	.3	.1	.4	.2	.3	5.7	7.1
Hardware	5.3	7.1	4.6	5.5	.4	.6	.1	.8	.2	.2	8.5	8.8
Stoves, oil burners, and heating equipment	6.4	6.4	4.3	4.8	.4	.5	1.3	.9	.4	.2	10.1	10.4
Steam and hot-water heating apparatus and steam fittings	4.8	5.2	3.8	4.1	.5	.4	.4	.6	.1	.1	7.7	7.1
Stamped and enameled ware and galvanizing	7.1	7.2	5.6	5.1	.5	.5	.9	1.4	.1	.2	10.1	8.7
Fabricated structural-metal products	5.0	6.5	3.0	3.1	.4	.3	1.4	2.8	.2	.3	8.4	5.9
Bolts, nuts, washers, and rivets	3.3	5.0	2.6	2.6	.2	.2	.2	2.0	.3	.2	4.7	3.5
Forgings, iron and steel	3.6	4.7	2.5	3.0	.2	.2	.8	1.4	.1	.1	4.1	3.8
Electrical machinery	5.2	5.6	3.4	3.5	.3	.3	1.4	1.7	.1	.1	6.3	5.6
Electrical equipment for industrial use	4.3	6.0	2.9	3.3	.4	.3	.9	2.3	.1	.1	5.1	5.1
Radios, radio equipment, and phonographs	6.2	7.2	4.3	4.7	.4	.5	1.4	1.8	.1	.2	7.4	5.8
Communication equipment, except radios	4.5	3.6	2.3	2.2	.2	.1	1.8	1.2	.2	.1	5.2	4.7
Machinery, except electrical	4.0	4.6	2.7	2.8	.4	.4	.8	1.3	.1	.1	5.6	5.0
Engines and turbines	6.7	5.6	2.3	2.5	.3	.3	4.0	2.7	.1	.1	8.1	5.7
Agricultural machinery and tractors	(4)	4.9	(4)	2.9	(4)	.3	(4)	1.5	(4)	.2	(4)	4.5
Machine tools	2.5	5.0	1.7	1.8	.2	.2	.4	2.8	.2	.2	4.0	3.5
Machine-tool accessories	3.4	3.6	2.3	2.2	.4	.4	.6	.9	.1	.1	5.2	5.7
Metalworking machinery and equipment, not elsewhere classified	3.4	5.3	2.7	2.8	.3	.4	.2	2.0	.2	.1	4.7	4.6
General industrial machinery, except pumps	3.8	4.5	2.7	2.8	.4	.5	.6	1.0	.1	.2	5.3	4.9
Pumps and pumping equipment	3.4	4.2	2.7	3.3	.3	.4	.3	.4	.1	.1	4.9	4.4
Transportation equipment except automobiles	9.5	12.4	3.7	4.3	.5	.5	5.2	7.5	.1	.1	8.2	8.1
Aircraft	5.6	7.7	3.5	3.2	.4	.3	1.6	4.1	.1	.1	7.7	6.9
Aircraft parts, including engines	7.9	5.4	2.8	2.5	.4	.5	4.6	2.4	.1	(3)	5.3	6.1
Shipbuilding and repairs	14.0	17.8	4.3	5.8	.6	.8	9.0	11.2	.1	.1	8.9	9.9
Automobiles	4.4	7.1	2.9	3.5	.3	.3	1.1	3.1	.1	.2	7.9	5.2
Motor vehicles, bodies, and trailers	4.1	6.4	2.9	3.7	.2	.4	.9	2.2	.1	.1	8.5	5.1
Motor-vehicle parts and accessories	5.1	8.8	3.1	3.1	.3	.3	1.5	5.1	.2	.3	6.8	5.5

See footnotes at end of table.

TABLE 2.—*Monthly Labor Turn-Over Rates (per 100 Employees) in Selected Groups and Industries,*[1] *June 1946*[2]—Continued

Industry group and industry	Total separation		Quit		Discharge		Lay-off		Military and miscellaneous		Total accession	
	June	May	June	May	June	May	June	May	June	May	June	May
Manufacturing—Continued												
Nonferrous metals and their products	4.5	5.2	3.5	3.8	0.4	0.5	0.5	0.7	0.1	0.2	6.1	6.2
Primary smelting and refining, except aluminum and magnesium	3.1	3.0	2.4	2.3	.2	.3	.2	.2	.3	.2	4.2	3.6
Rolling and drawing of copper and copper alloys	3.4	3.8	2.7	2.7	.2	.3	.4	.6	.1	.2	5.2	5.0
Lighting equipment	4.9	7.6	4.1	5.5	.3	.2	.4	1.8	.1	.1	7.6	6.4
Nonferrous-metal foundries, except aluminum and magnesium	4.9	5.3	3.5	3.6	.5	.7	.7	.8	.2	.2	5.6	5.3
Lumber and timber basic products	8.3	9.1	7.4	8.0	.4	.5	.3	.4	.2	.2	10.1	11.0
Sawmills	8.2	8.5	7.3	7.6	.5	.5	.2	.2	.2	.2	10.0	11.1
Planing and plywood mills	4.9	6.1	4.2	5.0	.3	.5	.2	.4	.2	.2	7.8	6.7
Furniture and finished lumber products	7.0	7.9	6.0	6.7	.5	.5	.4	.6	.1	.1	9.8	9.5
Furniture, including mattresses and bedsprings	7.0	7.9	6.0	6.7	.6	.6	.3	.5	.1	.1	9.9	9.9
Stone, clay, and glass products	5.7	5.6	4.6	3.9	.4	.4	.5	1.1	.2	.2	8.4	6.3
Glass and glass products	6.2	6.6	4.4	3.7	.5	.4	.9	2.2	.4	.3	8.4	5.0
Cement	6.5	5.4	5.5	4.2	.7	.7	.1	.3	.2	.2	9.6	8.6
Brick, tile, and terra cotta	7.3	6.8	6.4	5.3	.4	.6	.4	.8	.1	.1	9.4	9.7
Pottery and related products	5.0	5.1	4.2	4.6	.3	.3	.4	.1	.1	.1	7.7	5.5
Textile-mill products	5.5	6.1	4.8	5.4	.3	.3	.3	.2	.1	.2	6.6	6.6
Cotton	6.6	7.6	5.9	6.8	.4	.4	.1	.2	.2	.2	7.8	8.0
Silk and rayon goods	5.1	6.1	4.4	5.4	.3	.3	.3	.2	.1	.2	5.7	7.0
Woolen and worsted, except dyeing and finishing	4.5	4.2	3.3	3.4	.4	.3	.6	.4	.2	.1	4.4	4.4
Hosiery, full-fashioned	3.9	3.6	3.6	3.3	.2	.2	.1	.1	(3)	(3)	4.4	4.3
Hosiery, seamless	5.1	6.0	4.8	5.6	.1	.2	.1	.1	.1	.1	7.5	6.4
Knitted underwear	5.7	5.6	5.1	5.1	.2	.3	.4	.1	(3)	.1	6.5	5.8
Dyeing and finishing textiles, including woolen and worsted	3.4	3.8	2.5	2.9	.4	.5	.2	.2	.3	.2	4.4	3.9
Apparel and other finished textile products	5.1	5.6	4.5	5.1	.2	.2	.3	.3	.1	(3)	6.7	6.6
Men's and boys' suits, coats, and overcoats	3.1	4.4	2.8	3.9	.1	.2	.1	.3	.1	(3)	3.9	5.0
Men's and boys' furnishings, work clothing, and allied garments	5.4	5.8	5.0	5.4	.2	.2	.2	.2	(3)	(3)	7.8	6.8
Leather and leather products	4.9	5.4	4.1	4.4	.2	.3	.5	.6	.1	.1	5.1	5.8
Leather	4.9	4.7	3.3	3.5	.2	.2	1.2	.9	.2	.1	3.7	4.5
Boots and shoes	4.8	5.6	4.2	4.6	.2	.3	.3	.6	.1	.1	5.5	6.1
Food and kindred products	9.7	8.5	3.7	4.7	.4	.4	5.4	3.2	.2	.2	5.5	6.4
Meat products	13.5	9.2	3.3	4.2	.3	.4	9.6	4.2	.3	.4	4.9	7.6
Grain-mill products	5.7	8.3	4.1	5.3	.8	.7	.7	2.2	.1	.1	9.0	4.5
Tobacco manufactures	6.1	6.8	5.3	5.4	.3	.3	.2	.9	.3	.2	6.9	6.9
Paper and allied products	5.4	5.7	4.4	4.7	.5	.5	.3	.4	.2	.1	7.0	6.5
Paper and pulp	4.8	5.0	3.9	4.1	.4	.4	.3	.4	.2	.1	6.2	5.8
Paper boxes	6.7	7.7	5.8	6.4	.7	.7	.1	.4	.1	.2	9.4	7.9
Chemicals and allied products	3.2	3.4	2.4	2.3	.3	.3	.3	.6	.2	.2	4.6	3.7
Paints, varnishes, and colors	2.9	3.5	2.2	2.6	.2	.2	.3	.6	.2	.1	4.6	3.4
Rayon and allied products	3.2	2.9	2.5	2.4	.2	.2	.2	.1	.3	.2	4.3	3.1
Industrial chemicals, except explosives	3.0	3.3	2.3	2.2	.3	.4	.3	.5	.1	.2	4.8	3.8
Products of petroleum and coal	1.9	2.3	1.3	1.2	.1	.2	.3	.7	.2	.2	2.8	2.8
Petroleum refining	1.8	2.2	1.2	1.1	.1	.1	.3	.8	.2	.2	2.7	2.6

See footnotes at end of table.

TABLE 2.—*Monthly Labor Turn-Over Rates (per 100 Employees) in Selected Groups and Industries,*[1] *June 1946* [2]—Continued

Industry group and industry	Total separation		Quit		Discharge		Lay-off		Military and miscellaneous		Total accession	
	June	May	June	May	June	May	June	May	June	May	June	May
Manufacturing—Continued												
Rubber products	4.1	4.4	3.4	3.5	0.3	0.3	0.2	0.4	0.2	0.2	5.1	4.8
Rubber tires and inner tubes	3.1	3.1	2.7	2.6	.2	.2	.1	.1	.1	.2	4.0	3.3
Rubber footwear and related products	5.8	5.4	5.0	4.8	.2	.2	.2	.2	.4	.2	6.0	6.7
Miscellaneous rubber industries	5.2	6.1	4.3	4.5	.4	.5	.2	.9	.3	.2	7.1	6.6
Miscellaneous industries	3.9	4.4	2.8	3.0	.3	.3	.6	.9	.2	.2	5.2	5.4
Nonmanufacturing												
Metal mining	5.6	6.4	4.7	5.4	.4	.6	.3	.1	.2	.3	6.9	7.3
Iron ore	2.2	2.0	1.7	1.2	(3)	.1	.2	.2	.2	.5	4.1	4.4
Copper ore	8.5	(4)	7.3	(4)	.8	(4)	.2	(4)	.2	(4)	10.6	(4)
Lead and zinc ore	6.1	7.0	5.1	6.2	.3	.6	.5	.1	.2	.1	5.5	7.0
Coal mining:												
Anthracite mining	(4)	2.7	(4)	1.5	(4)	(3)	(4)	1.0	(4)	.2	(4)	1.7
Bituminous-coal mining	3.5	(4)	2.8	(4)	.2	(4)	.2	(4)	.3	(4)	5.7	(4)
Public utilities:												
Telephone	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
Telegraph	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)

[1] Since January 1943 manufacturing firms reporting labor turn-over have been assigned industry codes on the basis of current products. Most plants in the employment and pay-roll sample comprising those which were in operation in 1939, are classified according to their major activity at that time, regardless of any subsequent change in major products.
[2] Preliminary.
[3] Less than 0.05.
[4] Not available.

TABLE 3.—*Monthly Labor Turn-Over Rates (per 100 Employees) for Men and Women in all Manufacturing and Selected Groups,*[1] *June 1946* [2]

Industry group	Total separation				Quit				Accession			
	Men		Women		Men		Women		Men		Women	
	June	May	June	May	June	May	June	May	June	May	June	May
All manufacturing	5.4	5.9	6.3	7.1	3.5	3.7	5.0	5.4	6.4	6.0	6.9	6.5
Durable goods	5.4	6.3	6.1	7.4	3.7	3.8	4.5	4.6	7.2	6.3	7.4	6.1
Nondurable goods	5.3	5.2	6.4	7.0	3.1	3.5	5.1	5.7	5.1	5.4	6.7	6.6
Iron and steel and their products	4.5	4.8	6.0	7.7	3.3	3.1	4.2	4.6	6.5	4.9	6.7	6.0
Electrical machinery	4.3	4.7	6.8	7.1	2.4	2.4	4.9	5.1	5.2	5.1	7.9	6.3
Machinery, except electrical	3.7	4.3	4.9	5.8	2.4	2.6	3.5	3.4	5.4	5.0	6.1	4.5
Transportation equipment, except automobiles	9.4	12.0	6.9	10.2	3.7	4.0	3.7	3.5	8.5	8.4	5.1	4.7
Automobiles	4.3	6.8	5.1	10.5	2.9	3.0	3.7	3.6	7.9	4.6	7.6	7.4
Nonferrous metals and their products	4.2	5.1	5.5	5.6	3.2	3.7	4.5	4.3	5.7	6.2	7.5	6.3
Lumber and timber basic products	8.4	9.2	5.5	6.7	7.6	8.2	4.7	5.6	10.2	11.3	7.3	6.3
Furniture and finished lumber products	7.0	8.0	7.5	7.7	5.9	6.7	6.5	6.5	9.7	9.6	10.3	9.1
Stone, clay, and glass products	5.6	5.6	6.1	7.8	4.4	3.6	5.1	5.2	8.4	6.5	8.2	5.1
Textile-mill products	5.3	5.8	5.9	6.5	4.5	5.0	5.3	5.9	6.6	6.8	6.5	6.3
Apparel and other finished textile products	3.2	3.8	5.3	6.1	2.5	3.2	4.9	5.6	4.7	4.7	7.1	7.0
Leather and leather products	4.1	4.7	5.7	6.6	3.4	3.7	4.9	5.6	4.1	5.0	6.5	7.0
Food and kindred products	9.1	7.6	11.9	11.9	3.0	4.0	6.3	7.2	5.1	6.2	6.7	7.0
Tobacco manufactures	5.0	4.4	6.6	8.3	3.8	3.3	6.1	6.6	6.0	7.0	7.4	6.9
Paper and allied products	4.9	5.4	6.6	6.8	4.0	4.3	5.7	5.9	6.7	6.3	8.2	7.1
Chemicals and allied products	2.8	3.2	4.6	4.4	2.1	2.0	3.7	3.4	4.4	3.7	5.6	3.7
Products of petroleum and coal	1.8	2.0	4.6	7.5	1.1	1.1	3.2	3.7	2.8	2.8	3.4	2.9
Rubber products	3.7	3.7	5.1	5.8	3.0	3.0	4.6	4.7	4.8	4.5	6.0	5.5
Miscellaneous industries	3.3	3.6	5.0	5.8	2.2	2.3	4.1	4.3	4.5	4.8	6.4	6.5

[1] These figures are based on a slightly smaller sample than that for all employees, inasmuch as some firms do not report separate data for women.
[2] Preliminary figures.

Trends of Earnings and Hours

Summary of Earnings and Hours Data for June 1946

AVERAGE hourly earnings in manufacturing industries in June 1946 advanced 1.3 cents over May to $1.08 and, with the widespread resumption of production, resulted in the highest weekly earnings in 11 months but more than $4 below the wartime peak. Preliminary estimates for July indicate further gains to $1.09 an hour.

In the durable goods industries, increased hourly and weekly earnings over the month were reported in all groups. Average hourly earnings of $1.17 set an all-time record, while average weekly earnings of $46.43 were the highest since July 1945 when the workweek was 5.1 hours longer. On the average, 39.8 hours per week were worked in June.

The nondurable goods group showed average hourly earnings of over $1 for the first time on record, while average weekly earnings maintained the $40 level for the fourth successive month. Although increases in hourly earnings over the month in 9 of the 11 main nondurable goods groups contributed to the record earnings in June, in only 5 of these were hourly earnings above the $1 level. In the 6 remaining industries, earnings averaged 85 cents (tobacco) to 99 cents (paper and paper products). While average weekly earnings were below the $40 level in tobacco, textiles, apparel, and leather, only in tobacco were they below $35.

Preliminary estimates for July 1946 are presented below:

	Weekly earnings	*Weekly hours*	*Hourly earnings (in cents)*
All manufacturing	$43.35	39.6	109.3
Durable goods	46.15	39.2	117.7
Nondurable goods	40.49	40.1	101.0

Earnings and Hours in Manufacturing and Nonmanufacturing Industries

MANUFACTURING

Industry group and industry	Average weekly earnings [1]			Average weekly hours [1]			Average hourly earnings [1]		
	June 1946	May 1946	April 1946	June 1946	May 1946	April 1946	June 1946	May 1946	April 1946
							Cents	*Cents*	*Cents*
All manufacturing	$43.35	$42.48	$42.88	40.0	39.7	40.5	108.4	107.1	105.8
Durable goods	46.43	45.05	45.71	39.8	39.3	40.4	116.5	114.8	113.1
Nondurable goods	40.27	39.93	40.13	40.1	40.1	40.6	100.3	99.6	98.8
Durable goods									
Iron and steel and their products	46.60	45.77	47.28	38.8	38.5	39.9	120.1	119.1	118.6
Blast furnaces, steel works, and rolling mills	46.76	46.16	48.57	36.0	35.8	37.5	129.7	129.0	129.4
Gray-iron and semisteel castings	50.59	49.16	50.15	41.9	41.3	43.2	119.7	117.9	115.7
Malleable-iron castings [2]	48.36	45.18	48.20	39.9	37.7	41.6	121.1	119.9	115.7
Steel castings	48.29	48.14	49.36	38.4	38.9	39.6	125.8	124.0	124.7
Cast-iron pipe and fittings	41.50	39.58	38.90	40.0	39.7	39.4	103.6	99.4	98.5
Tin cans and other tinware	42.43	39.25	41.92	40.2	37.6	40.4	105.4	104.6	104.3
Wirework	47.20	44.55	47.27	41.2	39.2	41.9	114.4	113.8	112.9
Cutlery and edge tools	45.41	45.10	44.30	43.3	43.7	44.1	105.2	104.0	100.1
Tools (except edge tools, machine tools, files, and saws)	46.07	45.57	45.06	43.2	43.1	43.5	106.8	105.7	103.1
Hardware	42.54	42.51	42.54	41.3	41.6	42.0	102.6	102.1	101.3
Plumbers' supplies	44.24	44.34	44.80	39.9	40.7	42.0	110.8	108.9	106.6
Stoves, oil burners, and heating equipment, not elsewhere classified	45.89	43.93	44.87	40.4	39.8	41.1	112.8	110.6	109.3
Steam and hot-water heating apparatus and steam fittings	46.41	47.12	47.37	39.5	40.4	40.8	117.5	116.6	116.0
Stamped and enameled ware and galvanizing	44.04	43.57	43.81	39.9	40.1	40.9	110.4	108.6	107.1
Fabricated structural and ornamental metalwork	47.20	47.28	47.79	40.2	40.6	41.5	117.6	116.7	115.4
Metal doors, sash, frames, molding, and trim	49.46	47.09	48.66	45.2	43.9	45.8	110.9	108.8	107.7
Bolts, nuts, washers, and rivets [3]	44.29	41.20	42.81	39.2	36.9	39.0	112.6	111.0	109.3
Forgings, iron and steel	52.26	50.63	52.74	39.4	38.3	40.2	132.7	132.0	131.1
Screw-machine products and wood screws	48.72	47.48	48.29	41.7	41.7	43.0	115.9	113.8	112.3
Steel barrels, kegs, and drums	42.70	43.47	44.06	38.1	38.6	39.7	112.4	112.8	111.3
Firearms	51.53	50.66	49.70	41.6	41.3	41.9	123.8	122.5	118.7
Electrical machinery	45.87	44.10	44.03	39.7	38.8	40.2	115.6	113.8	109.6
Electrical equipment	46.15	45.66	43.97	39.1	39.1	39.8	118.6	117.0	110.6
Radios and phonographs [4]	40.05	39.15	39.04	38.8	37.9	39.1	102.3	102.4	99.9
Communication equipment [5]	49.69	43.60	48.38	42.4	38.5	42.1	117.4	113.2	114.9
Machinery, except electrical	50.45	48.61	48.94	41.1	40.3	41.5	122.7	120.7	117.9
Machinery and machine-shop products	50.10	48.55	49.26	41.3	40.8	42.2	120.7	118.7	116.3
Engines and turbines	52.43	51.42	46.57	40.0	40.1	37.4	132.0	128.2	124.8
Tractors	54.62	42.68	45.81	41.9	34.4	38.7	130.5	124.2	118.3
Agricultural machinery, excluding tractors	47.77	43.51	45.34	39.6	36.8	40.9	121.0	118.3	110.8
Machine tools	53.86	52.01	51.92	42.2	41.6	42.6	127.7	125.1	122.0
Machine-tool accessories	54.00	53.16	52.43	41.4	40.6	40.8	130.9	131.3	128.6
Textile machinery	46.99	48.32	49.35	41.9	43.3	44.4	112.3	111.6	111.2
Typewriters	44.78	45.33	45.44	42.1	42.7	42.5	107.4	107.4	106.8
Cash registers, adding and calculating machines	56.00	55.03	54.24	42.0	41.4	41.4	138.8	133.3	131.5
Washing machines, wringers and driers, domestic	43.81	38.37	42.65	40.2	37.2	42.0	109.0	103.3	101.5
Sewing machines, domestic and industrial	50.40	49.48	50.29	43.6	43.6	44.2	116.5	115.1	114.1
Refrigerators and refrigeration equipment	46.64	47.89	47.64	38.3	39.4	39.8	121.6	121.7	119.8
Transportation equipment, except automobiles	53.80	52.09	52.50	39.5	39.1	39.9	136.2	133.3	131.6
Locomotives	58.91	56.17	56.23	40.5	38.6	39.5	146.3	145.4	142.3
Cars, electric- and steam-railroad	48.98	47.09	48.19	40.7	39.7	41.7	120.2	119.4	115.6
Aircraft and parts, excluding aircraft engines	52.96	51.63	51.68	40.4	40.7	41.3	130.4	126.8	125.3
Aircraft engines	55.75	55.26	54.08	41.5	41.3	41.8	134.2	133.9	129.3
Shipbuilding and boatbuilding	55.30	52.79	53.43	38.2	37.6	38.5	144.2	140.3	138.9
Motorcycles, bicycles, and parts	47.05	46.42	46.86	39.8	39.6	41.6	118.2	117.3	112.5
Automobiles	49.45	47.15	48.72	36.8	35.8	37.4	134.3	131.8	130.2

See footnotes at end of table.

Earnings and Hours in Manufacturing and Nonmanufacturing Industries—Continued

MANUFACTURING—Continued

Industry group and industry	Average weekly earnings [1]			Average weekly hours [1]			Average hourly earnings [1]		
	June 1946	May 1946	April 1946	June 1946	May 1946	April 1946	June 1946	May 1946	April 1946
Durable goods—Continued							*Cents*	*Cents*	*Cents*
Nonferrous metals and their products	$47.62	$47.06	$47.29	40.9	41.1	41.8	116.4	114.6	113.1
Smelting and refining, primary, of nonferrous metals	47.43	45.92	45.93	40.0	39.8	39.9	118.6	115.4	115.1
Alloying and rolling and drawing of nonferrous metals, except aluminum [2]	52.58	51.24	50.42	41.6	41.0	41.8	126.8	125.1	120.8
Clocks and watches [3]	40.70	40.97	40.90	40.3	41.2	41.7	101.1	99.5	98.0
Jewelry (precious metals) and jewelers' findings	47.05	47.58	47.89	43.4	43.7	44.2	108.5	108.3	107.8
Silverware and plated ware	51.42	51.12	52.37	44.8	45.1	46.1	114.8	113.5	113.6
Lighting equipment [3]	45.12	44.59	45.44	39.2	39.6	41.2	114.7	112.5	110.4
Aluminum manufactures	45.86	46.43	47.21	39.4	40.0	40.9	116.4	116.0	115.4
Lumber and timber basic products	37.53	36.04	35.34	41.5	40.9	41.3	90.4	88.1	85.6
Sawmills and logging camps	36.44	34.75	34.02	41.2	40.4	40.8	88.4	86.0	83.4
Planing and plywood mills	41.11	40.27	39.57	42.5	42.6	43.0	96.8	94.4	92.0
Furniture and finished lumber products	38.92	37.86	38.21	41.8	41.3	42.3	93.1	91.7	90.3
Furniture	39.28	38.84	39.16	41.5	41.3	42.1	95.4	94.2	93.0
Caskets and other morticians' goods	42.07	40.95	40.40	43.1	42.4	42.4	97.9	96.3	94.5
Wood preserving	35.88	33.73	34.13	41.7	39.7	40.9	85.6	85.0	83.4
Stone, clay, and glass products	41.92	40.98	41.47	40.4	40.3	41.3	103.8	101.8	100.4
Glass and glassware	42.31	42.29	42.96	38.7	39.0	40.0	108.5	108.1	107.5
Glass products made from purchased glass	37.53	37.85	36.85	41.1	43.4	41.8	89.9	86.0	86.0
Cement	43.05	43.67	43.72	41.3	42.1	43.1	104.4	103.7	101.5
Brick, tile, and terra cotta	39.05	36.79	38.28	40.0	38.5	40.7	97.9	95.5	93.7
Pottery and related products	40.64	37.94	38.22	39.5	39.7	40.5	103.4	96.6	95.6
Gypsum	48.08	45.41	46.07	47.3	45.8	46.7	101.7	99.2	98.7
Lime	41.66	40.11	42.53	44.9	44.6	48.2	90.8	88.9	87.9
Marble, granite, slate, and other products	42.72	43.47	42.66	42.4	42.9	42.7	100.4	101.3	99.8
Abrasives	47.12	45.11	44.30	40.3	39.3	39.4	116.4	114.8	112.3
Asbestos products	47.91	47.13	46.82	43.3	43.1	44.0	111.5	109.6	106.2
Nondurable goods									
Textile-mill products and other fiber manufactures	35.02	34.80	34.98	40.0	39.8	40.3	87.5	87.3	86.9
Cotton manufactures, except smallwares	31.75	31.58	31.79	39.5	39.3	39.8	80.3	80.3	79.9
Cotton smallwares	36.41	35.21	36.45	40.8	40.3	41.6	89.3	87.4	87.6
Silk and rayon goods	34.64	35.11	35.10	40.8	41.3	41.6	85.0	84.9	84.5
Woolen and worsted manufactures, except dyeing and finishing	41.63	41.67	41.81	41.1	41.1	41.4	101.4	101.4	101.0
Hosiery	33.85	33.77	33.87	38.1	38.0	38.4	88.8	88.8	88.2
Knitted cloth	39.41	37.85	38.56	43.1	41.8	43.1	90.9	90.0	89.4
Knitted outerwear and knitted gloves	35.31	35.60	34.71	39.6	39.8	39.6	87.9	88.1	86.7
Knitted underwear	30.63	29.47	29.67	38.4	37.4	38.3	78.9	78.4	77.2
Dyeing and finishing textiles, including woolen and worsted	40.52	39.16	39.80	43.0	41.5	42.1	94.7	94.3	94.3
Carpets and rugs, wool	41.64	40.98	40.80	40.8	40.3	40.7	102.4	101.8	100.4
Hats, fur-felt	49.41	49.78	51.12	40.9	41.1	42.0	120.8	120.3	121.6
Jute goods, except felts	37.10	37.11	37.09	43.9	44.1	43.8	84.4	84.0	84.5
Cordage and twine	33.68	33.36	33.98	39.2	39.8	41.0	85.0	83.7	82.8
Apparel and other finished textile products	35.19	35.27	35.92	37.0	36.9	37.2	95.1	95.6	96.6
Men's clothing, not elsewhere classified	38.21	37.68	37.50	38.1	37.6	37.7	100.0	99.7	99.3
Shirts, collars, and nightwear	28.61	28.83	28.65	37.0	37.1	37.1	77.6	78.0	77.6
Underwear and neckwear, men's	30.95	30.27	29.95	36.6	35.8	35.9	85.1	85.1	84.1
Work shirts	22.62	22.47	22.45	35.2	35.6	36.1	64.2	63.1	62.2
Women's clothing, not elsewhere classified	44.64	45.55	46.29	36.2	36.4	36.5	119.5	121.1	123.4
Corsets and allied garments	33.76	33.10	33.89	38.5	38.4	39.7	87.9	86.4	85.5
Millinery	37.69	34.28	41.95	30.4	29.2	33.1	102.8	98.7	104.4
Handkerchiefs	27.26	27.61	27.18	36.0	36.8	36.4	75.8	75.3	75.0
Curtains, draperies, and bedspreads	28.45	28.21	27.91	37.3	36.7	36.5	76.6	76.9	76.4
Housefurnishings other than curtains, etc.	31.56	33.76	34.57	35.9	38.3	39.5	86.9	88.1	87.2
Textile bags [1]	31.39	30.69	30.91	38.5	38.7	39.4	81.4	79.3	78.4

See footnotes at end of table.

Earnings and Hours in Manufacturing and Nonmanufacturing Industries—Continued

MANUFACTURING—Continued

Industry group and industry	Average weekly earnings [1]			Average weekly hours [1]			Average hourly earnings [1]		
	June 1946	May 1946	April 1946	June 1946	May 1946	April 1946	June 1946	May 1946	April 1946
Nondurable goods—Continued							*Cents*	*Cents*	*Cents*
Leather and leather products	$37.36	$37.38	$37.58	39.3	39.6	40.5	95.1	94.3	92.8
Leather	44.51	42.92	44.20	40.6	40.2	41.9	109.3	106.7	105.5
Boot and shoe cut stock and findings	36.27	36.00	35.93	40.3	40.1	40.4	91.5	91.2	90.0
Boots and shoes	36.14	36.77	36.97	39.0	39.6	40.5	92.3	92.1	90.4
Leather gloves and mittens	32.53	31.46	30.54	36.6	36.0	35.7	89.3	87.8	85.4
Trunks and suitcases	38.94	38.60	37.81	39.5	40.3	40.0	97.4	95.1	94.6
Food	41.09	40.73	40.76	42.3	42.4	42.8	97.2	96.2	95.2
Slaughtering and meat packing	42.99	43.99	42.77	39.5	40.6	40.1	109.2	108.7	107.2
Butter	39.62	38.68	38.14	47.0	46.6	46.6	83.0	82.3	81.4
Condensed and evaporated milk	44.19	42.60	41.74	49.9	48.7	48.0	88.5	87.6	86.9
Ice cream	44.16	43.03	41.86	47.4	47.1	47.0	90.7	89.1	86.0
Flour	44.43	41.88	43.30	46.8	45.3	46.4	95.1	92.5	93.3
Cereal preparations	45.77	41.92	43.66	42.9	40.0	41.8	106.0	104.7	104.5
Baking	41.33	41.14	41.74	43.9	44.2	45.0	94.3	93.1	93.0
Sugar refining, cane	38.64	38.63	36.68	39.5	40.3	40.1	97.8	95.9	91.6
Sugar, beet	38.39	39.12	39.44	37.4	38.8	39.4	102.5	100.9	100.1
Confectionery	34.78	32.54	34.00	39.6	38.8	40.7	85.5	82.3	81.7
Beverages, nonalcoholic	38.75	37.48	37.35	43.6	42.7	43.2	88.3	86.9	85.5
Malt liquors	52.22	51.17	48.98	41.2	41.2	40.2	126.9	124.1	121.8
Canning and preserving	35.67	34.64	35.48	39.7	39.2	40.2	90.3	88.7	88.5
Tobacco manufactures	33.72	33.52	32.48	39.9	39.5	39.2	84.6	84.8	83.0
Cigarettes	37.70	37.86	36.06	41.4	41.2	40.4	91.0	91.9	89.2
Cigars	31.28	30.71	30.51	39.0	38.5	38.7	79.7	79.4	78.5
Tobacco (chewing and smoking) and snuff	29.86	29.15	27.56	37.8	37.4	35.9	79.0	77.9	76.8
Paper and allied products	42.75	42.01	42.03	43.1	42.8	43.5	99.3	98.1	96.6
Paper and pulp	45.34	45.26	44.87	43.7	43.8	44.4	103.8	102.6	101.0
Envelopes	42.11	41.38	40.47	43.2	42.4	43.1	96.5	96.1	93.1
Paper bags	36.54	34.86	35.73	40.9	40.3	40.8	89.7	86.8	87.9
Paper boxes	39.99	38.85	39.07	42.4	42.0	42.8	94.4	92.7	91.4
Printing, publishing, and allied industries	51.80	51.10	51.09	40.6	40.4	41.0	127.7	126.6	124.8
Newspapers and periodicals	56.10	56.07	55.63	38.0	38.1	38.4	144.9	144.3	142.3
Printing, book and job	49.64	48.77	49.18	41.6	41.4	42.2	120.1	118.6	117.1
Lithographing	53.03	51.92	51.94	43.4	43.2	43.5	122.1	120.1	119.5
Chemicals and allied products	44.00	43.30	43.28	40.5	40.7	41.4	108.6	106.4	104.5
Paints, varnishes, and colors	47.10	45.94	46.56	42.9	42.4	43.4	109.9	108.6	107.5
Drugs, medicines, and insecticides	38.31	38.13	37.83	40.2	40.4	40.7	95.4	94.5	93.1
Soap	47.60	46.01	46.35	40.9	40.5	41.1	116.4	113.5	112.7
Rayon and allied products	40.09	40.43	40.18	38.3	39.4	39.4	104.7	102.5	102.0
Chemicals, not elsewhere classified	50.86	50.29	50.58	40.8	40.7	41.5	124.7	123.4	122.0
Explosives and safety fuses	48.53	46.71	47.43	39.1	38.8	39.6	124.2	120.5	119.6
Ammunition, small-arms	42.10	40.67	42.76	37.7	37.2	39.1	111.5	109.4	109.4
Cottonseed oil	29.43	29.78	29.53	45.8	47.5	48.6	64.3	62.7	60.7
Fertilizers	32.52	31.63	31.87	41.6	41.5	43.6	78.2	76.2	73.1
Products of petroleum and coal	52.94	52.74	53.27	39.2	39.3	40.0	134.9	134.1	133.2
Petroleum refining	56.27	56.42	56.61	39.4	39.8	39.8	142.8	141.7	142.0
Coke and byproducts	42.36	40.71	43.51	35.7	34.8	37.9	116.8	116.9	114.8
Roofing materials	48.47	46.66	47.04	44.8	44.1	45.3	108.2	105.8	103.9
Rubber products	50.39	49.82	49.67	39.3	39.4	40.3	128.4	126.6	123.2
Rubber tires and inner tubes	54.76	54.72	54.77	37.3	37.7	38.6	146.3	144.6	141.4
Rubber boots and shoes	45.07	44.19	43.75	41.9	41.5	42.1	107.5	106.6	103.9
Rubber goods, other	45.57	44.01	43.45	41.6	41.5	42.6	108.9	106.2	102.4
Miscellaneous industries	42.93	42.08	42.39	41.2	40.9	41.8	104.2	102.8	101.5
Instruments (professional and scientific) and fire-control equipment	49.57	48.18	48.51	40.6	40.0	40.4	121.1	121.4	119.8
Pianos, organs, and parts	45.99	44.14	44.67	42.1	41.1	42.1	108.7	107.4	106.1

Earnings and Hours in Manufacturing and Nonmanufacturing Industries—Continued

NONMANUFACTURING

Industry group and industry	Average weekly earnings [1]			Average weekly hours [1]			Average hourly earnings [1]		
	June 1946	May 1946	April 1946	June 1946	May 1946	April 1946	June 1946	May 1946	April 1946
							Cents	*Cents*	*Cents*
Mining:									
Anthracite	$60.00	$57.47	$52.08	39.4	41.7	38.6	152.3	138.2	135.2
Bituminous coal	65.07	34.98	30.76	42.9	28.1	27.0	148.9	131.4	123.9
Metal	46.77	43.49	45.38	39.5	38.4	41.6	118.3	113.3	109.0
Iron	43.90	34.45	40.65	36.6	29.7	36.4	120.0	115.9	111.8
Copper	48.98	47.90	44.05	41.4	42.7	42.7	118.2	112.1	103.1
Lead and zinc	48.13	48.25	50.24	40.9	42.3	44.9	117.8	114.0	111.8
Quarrying and nonmetallic	45.17	42.83	44.57	45.6	44.3	46.3	99.3	96.7	95.9
Crude-petroleum production	52.25	52.41	52.51	39.5	40.7	40.7	132.3	128.7	129.3
Public utilities:									
Telephone	44.93	44.82	44.09	39.3	39.4	39.5	114.7	114.3	113.1
Telegraph [4]	40.39	40.04	38.79	44.5	44.2	43.8	90.8	90.5	88.6
Electric light and power	52.07	51.03	50.82	40.9	41.3	41.6	127.5	123.6	121.9
Street railways and busses	52.75	51.85	50.71	49.2	49.2	49.0	107.2	104.9	102.5
Trade:									
Wholesale	47.88	47.48	47.13	41.4	41.7	41.8	114.6	113.5	112.1
Retail	32.39	31.45	31.40	40.9	40.3	40.4	87.7	86.1	85.1
Food	39.41	37.93	37.53	41.8	40.8	40.6	90.4	88.6	87.7
General merchandise	27.35	25.97	26.14	36.9	36.1	36.8	73.4	72.2	70.5
Apparel	34.10	32.99	33.47	37.2	36.8	36.9	92.2	89.9	91.0
Furniture and housefurnishings	43.98	43.59	42.85	43.7	43.6	43.4	103.4	102.8	101.0
Automotive	47.47	46.61	46.58	46.3	46.1	46.2	104.1	102.6	102.2
Lumber and building materials	42.08	41.83	41.73	43.2	43.2	43.6	98.8	98.3	97.4
Hotels (year-round) [5]	26.70	26.65	26.64	44.0	44.1	44.3	60.3	59.6	59.9
Power laundries	30.64	30.26	30.05	43.3	43.1	43.5	70.3	70.3	68.8
Cleaning and dyeing	36.29	35.50	36.25	43.8	42.9	44.0	83.4	83.1	83.3
Brokerage	67.17	68.77	67.75	(6)	(6)	(6)	(6)	(6)	(6)
Insurance	51.51	51.27	51.11	(6)	(6)	(6)	(6)	(6)	(6)

[1] These figures are based on reports from cooperating establishments covering both full- and part-time employees who worked during any part of one pay period ending nearest the 15th of the month. As not all reporting firms furnish man-hour data, average hours and average hourly earnings for individual industries are based on a slightly smaller sample than are weekly earnings. For manufacturing, mining, power laundries, and cleaning and dyeing industries, the data relate to production workers only. For the remaining industries the data relate to all employees except high-paid executives and officials. Data for the current and immediately preceding months are subject to revision.

[2] Revisions have been made as follows in the data for earlier months:
Malleable-iron castings.—March 1946 to 113.8 cents.
Bolts, nuts, washers, and rivets.—March 1946 to $43.09 and 39.6 hours.
Radios and phonographs.—March 1946 to $38.87 and 39.0 hours.
Alloying and rolling and drawing of nonferrous metals except aluminum.—February 1946 to $52.02 and 44.3 hours.
Textile bags.—March 1946 to $31.02, 40.3 hours, and 77.0 cents.

[3] New series beginning February 1946; not comparable with previously published data:
Clocks and watches.—New February and March data are $39.56 and $41.11; 94.9 and 97.2 cents. Comparable January data are $38.93 and 94.9 cents.
Lighting equipment.—New February and March data are $42.73 and $41.81; 41.1 and 40.6 hours; February 104.0 cents. Comparable January data are $42.82, 41.5 hours, and 103.3 cents.

[4] Excludes messengers and approximately 6,000 employees of general and divisional headquarters, and of cable companies.

[5] Cash payments only; additional value of board, room, and tips, not included.

[6] Not available.

Trend of Factory Earnings, 1939 to June 1946

THE published average earnings of factory workers are summarized in the accompanying table for selected months from January 1939 to June 1946.[1] The earnings shown in this table are on a gross basis (i. e., before deductions for social security, income and victory taxes, bond purchases, etc.).

Weekly earnings in all manufacturing averaged $43.35 in June 1946—86.9 percent above the average in January 1939, 62.7 percent above January 1941, and 11.5 percent above October 1942. Weekly pay for June 1946 dropped 6.4 percent below that of June 1945, as the

[1] Compare Trends in Factory Wages, 1939–43, in Monthly Labor Review, November 1943 (p. 869), especially table 4 (p. 879). For detailed data regarding weekly earnings, see preceding table.

result of reductions in working hours. However the average earnings of factory workers were still higher than before the war, as a result of such wartime factors as changing composition of the labor force within plants, shifts in the distribution of workers among plants and among industries, as well as wage-rate increases.

Gross hourly earning in all manufacturing averaged 108.4 cents in June 1946—71.5 percent above the average in January 1939, 58.7 percent above January 1941, and 21.4 percent above October 1942.

Straight-time average hourly earnings, as shown in columns 7 to 9, are weighted by man-hours of employment in the major divisions of manufacturing for January 1941. These earnings are estimated to exclude premium pay at time and a half for work in excess of 40 hours. However, the effect of extra pay for work on supplementary shifts and on holidays is included. For all manufacturing, the straight-time average in June 1946 was 105.7 cents per hour; this was 64.9 percent higher than in January 1939, 59.2 percent above January 1941, and 31.0 percent above October 1942.

Earnings of Factory Workers in Selected Months, 1939 to June 1946

Month and year	Average weekly earnings			Average hourly earnings			Estimated straight-time average hourly earnings [1] weighted by January 1941 employment.		
	All manufacturing	Durable goods	Nondurable goods	All manufacturing	Durable goods	Nondurable goods	All manufacturing	Durable goods	Nondurable goods
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1939: January	$23.19	$25.33	$21.57	$0.632	$0.696	$0.583	$0.641	$0.702	$0.575
1940: January	24.56	27.39	22.01	.655	.717	.598	.652	.708	.589
1941: January	26.64	30.48	22.75	.683	.749	.610	.664	.722	.601
1942: January	33.40	38.98	26.97	.801	.890	.688	.751	.826	.668
July	36.43	42.51	28.94	.856	.949	.725	.783	.863	.696
October	38.89	45.31	30.66	.893	.990	.751	.807	.888	.718
1943: January	40.62	46.68	32.10	.919	1.017	.768	.819	.905	.726
April	42.48	48.67	33.58	.944	1.040	.790	.833	.916	.742
July	42.76	48.76	34.01	.963	1.060	.806	.850	.939	.753
October	44.86	51.26	35.18	.988	1.086	.824	.863	.950	.768
December	44.58	50.50	35.61	.995	1.093	.832	.873	.962	.775
1944: January	45.29	51.21	36.03	1.002	1.099	.838	.877	.965	.780
April	45.55	51.67	36.16	1.013	1.110	.850	.889	.976	.794
July	45.43	51.07	37.05	1.018	1.116	.862	.901	.993	.802
October	46.94	53.18	37.97	1.031	1.129	.878	.908	.991	.817
December	47.44	53.68	38.39	1.040	1.140	.883	.912	.997	.820
1945: January	47.50	53.54	38.66	1.046	1.144	.891	.920	1.005	.827
April	47.12	52.90	38.80	1.044	1.138	.899	.925	1.007	.836
July	45.12	50.60	38.59	1.032	1.126	.902	.933	1.017	.842
October	40.97	44.23	37.76	.985	1.063	.909	.942	1.014	.863
December	41.21	44.08	38.52	.994	1.066	.927	.957	1.028	.880
1946: January	41.15	43.67	38.75	1.004	1.070	.941	.970	1.037	.895
April	42.88	45.71	40.13	1.058	1.131	.988	1.027	1.102	.946
May [2]	42.48	45.05	39.93	1.071	1.148	.996	1.047	1.128	.958
June [2]	43.35	46.43	40.27	1.084	1.165	1.003	1.057	1.142	.965

[1] The method of estimating straight-time average hourly earnings makes no allowance for special rates of pay for work done on major holidays. Estimates for the months of January, July, September, and November, therefore, may not be precisely comparable with those for the other months, in which important holidays are seldom included in the pay periods for which manufacturing establishments report to the Bureau. This characteristic of the data does not appear to invalidate the comparability of the figures for January 1941 with those for the preceding and following months.

[2] Preliminary.

Recent Publications of Labor Interest

September 1946

Cooperative Movement

Developments in consumers' cooperative movement [in United States] in 1945. Washington, U. S. Bureau of Labor Statistics, 1946. 25 pp. (Bull. No. 859; reprinted from Monthly Labor Review, March 1946, with additional data.) 10 cents, Superintendent of Documents, Washington.

Norges Kooperative Landsforening—beretning for 1945. Oslo, 1946. 57 pp.
Report of Norway's National Cooperative Association for 1945, covering affiliated consumer, bank, insurance, and production societies. The association also has published in 1946 a report for the period 1940 to 1944, with a financial summary for 1914 to 1944.

Cooperatives in the U. S. S. R. By Germina Rabinowitch. (In American Review of the Soviet Union, New York, May 1946, pp. 40–50. 65 cents.)
Discussion of consumers' and industrial cooperatives and their educational activities.

Economic and Social Problems

California business cycles. By Frank L. Kidner. Berkeley and Los Angeles University of California Press, 1946. 131 pp., bibliography, charts. $2.50
A study of business cycles in California as compared with those of the United States. Statistical comparisons include changes in California and the United States in numbers gainfully occupied, in numbers employed in business activities, and in total and per capita income. Differences between the structure of the California economy and that of the Nation, and the more rapid rate of development in California, are discussed as causes of differences in the "cyclical behavior" of California and that of the country as a whole.

Economic concentration and World War II. Report of Smaller War Plants Corporation to Special Committee to Study Problems of American Small Business, United States Senate. Washington, U. S. Government Printing Office, 1946. 359 pp., charts. (Senate Doc. No. 206, 79th Cong., 2d sess.)
Statistical measures of concentration are analyzed, notably the number of employees per firm, and such advantages as surpluses for purchase of war plants and use of wartime techniques are described as favoring continued concentration. There are summary accounts of earlier concentration, especially during World War I and between the two World Wars.

Postwar taxation and economic progress. By Harold M. Groves. New York, McGraw-Hill Book Co., Inc., 1946. 432 pp., charts. (Committee for Economic Development research study.) $4.50.
Designed to develop recommendations for a permanent tax structure as distinguished from temporary transition policy. The author emphasizes the relationship of taxes to production as the basis of rising standards of living and attempts to work out tax proposals for facilitating the most effective flow of income needed for consumption, savings, and investment. A broadly based progressive income tax is supported as necessary for avoidance alike of inflation and of heavy sales taxes or other indirect taxes.

EDITOR'S NOTE.—Correspondence regarding the publications to which reference is made in this list should be addressed to the respective publishing agencies mentioned. Where data on prices were readily available, they have been shown with the title entries.

Prices, wages, and employment. By Charles O. Hardy, Kenneth B. Williams, Howard S. Ellis. Washington, Board of Governors of the Federal Reserve System, 1946. 94 pp. (Postwar economic studies, No. 4.) 25 cents.

The three main sections deal, respectively, with the prospects of inflation, employment and wage policies, and monopoly and unemployment. The discussion of employment and wage policies stresses the importance of adjusting wages and prices to increases in productivity. Increase in money returns in line with productivity gains, while holding average prices relatively stable, is recommended as a better course than attempting to hold money returns stable and reducing prices as productivity increases.

Employment

City employment in 1944. (In Government Employment, Vol. 5, No. 10, U. S. Department of Commerce, Bureau of the Census, Washington, July 1946, pp. 1–48; processed.)

Covers nonschool pay rolls as well as employment by size of city, municipal function, and employment status (permanent full-time, permanent part-time, and temporary and other). The detailed statistics relate to October 1944. Certain summary figures are given for January, April, July, and October, 1944, and October of 1940 to 1943. It is stated that rising pay rolls and declining employment continued to mark city government in 1944.

Report of Postwar Employment Committee, West Virginia State Planning Board, on postwar labor force, job opportunities, and employment. Morgantown, 1945. 21 pp.; processed.

Wood utilization problems and possibilities in Michigan. Lansing, Michigan Planning Commission, Forest Products Research Committee, 1946. 26 pp.

Includes some discussion of the possibilities for increased employment through expansion of the industrial use of wood.

Employment situation in certain foreign countries. Washington, U. S. Bureau of Labor Statistics, 1946. 43 pp. (Bull. No. 864; reprinted from Monthly Labor Review, January and February 1946, with later data.) 10 cents, Superintendent of Documents, Washington.

Estatística agrícola, [Portugal], 1944. [Lisbon], Instituto Nacional de Estatística, 1946. 201 pp.

Contains detailed statistics of employment in agriculture in 1940.

Income

Income from independent professional practice. By Milton Friedman and Simon Kuznets. New York, National Bureau of Economic Research, Inc., 1945. 594 pp., charts. (Publication No. 45.) $4.50.

Deals with five professions—medicine, dentistry, law, certified public accountancy, and consulting engineering—giving detailed analyses of statistics, mainly for the period from 1929 to 1936.

Report of the Inter-Departmental Committee on Remuneration of General Practitioners. London, Ministry of Health, and Department of Health for Scotland, 1946. 31 pp. (Cmd. 6810.) 6d. net, His Majesty's Stationery Office, London.

Findings of the committee appointed to consider what should be the range of total professional income of a registered medical practitioner in any publicly organized service of general medical practice in Great Britain. Includes statistics of incomes of general practitioners, at different ages, 1936–39.

National accounts, income, and expenditure, 1938–45. Ottawa, Department of Trade and Commerce, Bureau of Statistics, 1946. 46 pp. 50 cents.

Presents estimates of gross national product and national expenditure, as well as of net national income and personal income payments, in Canada.

Nasjonalinntekten i Norge, 1935–43. Oslo, Statistisk Sentralbyrå, 1946. 169 pp. (Norges offisielle statistikk, X, 102.) Kr. 2.50, H. Aschehoug & Co., Oslo.

Study of Norway's national income, including wages, by industry, etc., 1935–43 (in krone value for each year, based on the 1939 evaluation of the krone). Special chapters concern the reduction of real capital, 1939–45; consumption during the war; and costs of German occupation.

Industrial Accidents and Accident Prevention

Coal-mine explosions and coal- and metal-mine fires in the United States during the fiscal year ended June 30, 1945. By D. Harrington, W. J. Fene, H. B. Humphrey. Washington, U. S. Department of the Interior, Bureau of Mines, 1946. 22 pp., chart; mimeographed. (Information circular No. 7359.)

Prevention of explosives accidents in metal mines. Fires, gases, and ventilation in metal mines. Washington, U. S. Department of the Interior, Bureau of Mines, 1945 and 1946. 80 and 94 pp., respectively; illus. (Miners' circulars Nos. 54 and 55; Metal-mine accident-prevention course, sections 4 and 5.) 20 cents each, Superintendent of Documents, Washington.

Safety around overhead cranes. Washington, U. S. Department of Labor, Division of Labor Standards, 1946. (Industrial safety charts, series Q.) 5 cents, Superintendent of Documents, Washington.

Dockmen get a lift. By Frank Davin. (In National Safety News, National Safety Council, Chicago, July 1946, pp. 22, 23, et seq., illus. 60 cents to nonmembers.)

Describes mechanical equipment which reduces accident exposure in the moving of freight at trucking terminals.

Time lost in industry. (In Michigan Labor and Industry, Department of Labor and Industry, Lansing, July 1946, pp. 2, 5.)

Statistics, by industry and agency of injury, of total time lost in connection with 33,371 compensable injury cases closed in Michigan in 1945. Industry groups having the heaviest time losses were transportation, iron and steel and their products, machinery, forest products, construction, and retail trade.

Industrial Hygiene

An eyesight survey of thirty plants [in Connecticut]. By Joseph Lo Presti, M.D. (In Sight-Saving Review, Vol. XV, No. 4, New York, winter 1945, pp. 202–211, chart. 50 cents.)

The survey, made in 1944 principally in war plants, disclosed many deficiencies in eye service, particularly serious with respect to supervision and professional personnel. Summary data given in the report include items bearing on occupational hazards and protective programs in the plants.

Industrial management and occupational cancer. By W. C. Hueper, M.D. (In Journal of the American Medical Association, Chicago, June 29, 1946, pp. 738–741. 25 cents.)

Notes injurious industrial substances and exposures which cause cancer, and the organs of the body which they attack, and makes comprehensive recommendations for the control of this hazard.

Industry, tuberculosis, silicosis, and compensation. New York, National Tuberculosis Association, 1945. 126 pp., bibliographies, charts, illus.

Symposium of 12 papers, all but one by physicians, assembled primarily for physicians and administrators interested in industrial medicine and workmen's compensation.

Effects of industrial exposure to quinacrine hydrochloride [atabrine]. By O. W. Barlow, M.D., L. W. Gorham, M.D., A. J. Bedell, M.D. (In Occupational Medicine, Chicago, May 1946, pp. 482–490, illus. 75 cents.)

Safety in handling magnesium. By Norman J. Thompson. (In Factory Management and Maintenance, Albany, N. Y., July 1946, pp. 126, 128. 35 cents.)

Sulfuric acid: Exposure to direct contact due to accident or carelessness may burn severely, blind. Washington, U. S. Department of Labor, Division of Labor Standards, 1946. 23 pp., bibliography. (Controlling chemical hazards series, No. 4.) Free.

Technical and social advances in industrial hygiene. By J. J. Bloomfield. (In Occupational Medicine, Chicago, May 1946, pp. 443–450. 75 cents.)

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Industrial Relations

Collective bargaining. By Leonard J. Smith. New York, Prentice-Hall, Inc., 1946. 468 pp., bibliography. $5.

Designed to furnish basic information on the collective-bargaining process. Each type of union-agreement provision is analyzed and examples of agreements covering workers in a variety of industries are given.

Collective bargaining by supervisory employees under the Wagner Act. (In University of Chicago Law Review, Chicago, April 1946, pp. 332–346. 75 cents.)

Traces decisions of the National Labor Relations Board regarding whether supervisory employees constitute a unit for collective bargaining. Also points out some unanswered questions and possible effects of proposed legislation.

Compulsory settlement of labor disputes. By Thomas K. Ford. Washington, Editorial Research Reports (1205–19th Street NW.), 1946. 16 pp. (Vol. 1, 1946, No. 5.) $1.

Reviews recent labor-relations difficulties in terms of proposals for legislative action, discusses experience with compulsory settlement of disputes, and evaluates various compulsory procedures.

Industrial relations in conditions of full employment. By H. S. Kirkaldy. Cambridge, England, University Press, 1945. 26 pp. 1s. 6d. net.

Considers the implications of a fully-employed labor force in Great Britain for wages policy and for settlement of industrial disputes, in particular disputes arising out of wages; inter-union difficulties; and disciplinary action. Stresses the need for more regular machinery for joint consultation on production problems, by industry, and for a trade-union policy oriented towards improving efficiency.

Repeal of the [British] Trade Disputes Act. London, Labor Party, 1946. 17 pp. (Labor discussion series, No. 5.) 2d.

Discusses reasons for the repeal of the Trade Disputes and Trade Unions Act of 1927 and its effects upon legitimate union activities in connection with strikes, picketing, political expenditures, and affiliation of civil-service unions with the Trades Union Congress.

Job evaluation—a case history. By Andrew J. Percival and Glen B. Gross. (In Harvard Business Review, Vol. XXIV, No. 4, Boston, summer 1946, pp. 466–497, charts. $1.50.)

Detailed account of the job-evaluation program of a large eastern company with several plants and 33,000 employees. It is stated that the entire program was a joint union-management undertaking.

Annual statistics of trade disputes [in Palestine], 1945. (In General Monthly Bulletin of Current Statistics, Department of Statistics, Jerusalem, May 1946, pp. 210–213. 4s.)

Shows for all labor, and for Arab labor and Jewish labor separately, the number and duration of disputes and their causes, results, and methods of settlement in 1945. There is also a summary of disputes in progress during the years 1935 to 1945.

What can the United States learn from Sweden's past labor pains? By Naboth Hedin. (In Commercial and Financial Chronicle, New York, May 23, 1946, pp. 2781, 2806. Reprints of article are available at 10 cents each from American-Swedish News Exchange, Inc., 630 Fifth Ave., New York.)

Industry Reports

Domestic servants in the United States, 1900–1940. By George J. Stigler. New York, National Bureau of Economic Research, Inc., 1946. 44 pp., maps, charts. (Occasional paper No. 24.) 50 cents.

Covers number of servants, their wages and hours, factors affecting their income, family expenditures on servants, and other information.

Joint national conference of the construction industry, held at Ottawa, February 18–20, 1946. (In Labor Gazette, Department of Labor, Ottawa, March 1946, pp. 405–417; also reprinted.)

Decisions of this conference of employers and workers covered policies concerning various labor matters, including apprentice training, in Canada.

Board of Trade working party reports—cotton. London, 1946. 278 pp. 3s. 6d. net, His Majesty's Stationery Office, London.

Report to the president of the British Board of Trade by a tripartite group including employer, trade-union, and "expert" members, appointed in October 1945. Reviews the history and current economic condition of the British cotton-textile industry and makes recommendations for industrial reorganization, re-equipment with automatic looms and ring spindles, and further technical and economic improvements in the industry. Includes reservations and dissenting opinions by certain members. Appendixes include a comparison of labor requirements of mills in the United States and Great Britain, and the report of a subcommittee showing cost of producing selected fabrics with different types of equipment, under various schedules of working hours and shifts.

Similar investigations are being made for some 14 other industries.

Manpower shortage and economies in labor utilization. By Sir E. Raymond Streat. Manchester, England, Norbury, Lockwood & Co., Ltd., Printers, 1946. 20 pp.

Address delivered in May 1946, dealing mainly with the cotton-textile industry in Great Britain.

Labor and Social Legislation

Compilation of laws relating to mediation, conciliation, and arbitration between employers and employees, laws disputes between carriers and employers and subordinate officials under Labor Board, eight-hour laws, employers' liability laws, labor and child labor laws. Compiled by Elmer A. Lewis. Washington, U. S. Government Printing Office, 1946. 597 pp.

High spots in State school legislation enacted in 1945. Washington, National Education Association, Research Division, 1946. 36 pp.; mimeographed.

Retirement, sick leave, minimum salaries, and reinstatement of veterans to their former positions were among the subjects of legislation pertaining to teachers enacted in 1945.

Laws relating to labor and employment [in Illinois], as amended and in force July 1, 1945. Compiled by Edward J. Barrett, Secretary of State. [Springfield, 1945.] 210 pp.

Everybody's business: A summary of New York State antidiscrimination laws and how to use them. By A. J. Isserman and Mary Pond. New York, National Federation for Constitutional Liberties, 1946. 64 pp. 25 cents.

The Wagner Act. (In Conference Board Management Record, National Industrial Conference Board, Inc., New York, May 1946, pp. 141–153.)

Summaries of addresses on the National Labor Relations Act delivered before a round-table conference in March 1946.

Labor Organizations and Their Activities

Directory of national and international unions and research directors, July 1946. Washington, U. S. Bureau of Labor Statistics, 1946. 26 pp.; processed. Free.

Lists names, addresses, and officials (presidents and secretary-treasurers) of all national and international unions in the United States affiliated with the American Federation of Labor and the Congress of Industrial Organizations, and of such other unions as have come to the attention of the Bureau.

The Maritime Labor Institute at Dalhousie University. Halifax, Nova Scotia, [Maritime Labor Institute, 1946?]. 10 pp.

Description of the organization and program of the Maritime Labor Institute, founded by unions in Nova Scotia and New Brunswick, with the cooperation of Dalhousie University's Institute of Public Affairs, to promote worker education and trade-union leadership.

Report of the national executive committee of the Labor Party to the 45th annual conference, Bournemouth, June 10–14, 1946. London, Labor Party, 1946. 87 pp.

Includes summaries of the chief legislative proposals introduced by the Labor Government of Great Britain and a tabulation showing the growth in the membership of the Labor Party from 1900 to 1945.

Medical Care and Health Insurance

The experimental health program of the U. S. Department of Agriculture. A study made for the Subcommittee on Wartime Health and Education of the Committee on Education and Labor, United States Senate. Washington, U. S. Government Printing Office, 1946. 166 pp., charts, illus. (Subcommittee monograph No. 1, 79th Cong., 2d sess.)

Describes and evaluates, as a movement, the tax-assisted local voluntary rural health associations developed in various counties, and points out implications for any broad program of health insurance. Three types of health associations are analyzed in detail and appraised.

Health insurance. Interim report from Subcommittee on Health and Education to Committee on Education and Labor, United States Senate, pursuant to S. Res. 62. * * * Washington, U. S. Government Printing Office, 1946. 30 pp., charts. (Subcommittee report No. 5, 79th Cong., 2d sess.)

Analyzes the adequacy of voluntary health-insurance plans in the United States to furnish prepaid medical care to the entire population, as measured by coverage, service, and cost. The Blue Cross hospital service, existing prepayment medical-care plans, and commercial health and accident insurance are the principal groups considered.

Medical services by government, local, State, and Federal. By Bernhard J. Stern. New York, Commonwealth Fund, 1946. 208 pp., bibliographies. $1.

Traces the development of official medical care from the concept of the poor laws through the relief programs of the 1930's to the present-day tendency to integrate such care into the Federal social-security program. Discusses medical services furnished by local, State, and Federal governments. Separate chapters are devoted to expenditures for medical care under various programs and to hospital services.

The Nicollet Clinic. (In Medical Economics, Rutherford, N. J., July 1946, pp. 60–63. 25 cents.)

Describes operation of private group practice in Minneapolis and gives a scale of fees based on the economic status of the patients.

Report on health insurance for industrial workers [in India]. By B. P. Adarkar. Simla, Government of India Press, 1945. 221 pp. 3s. 9d.

Contains health-insurance proposals prepared at the request of the Government of India. Under the proposals, insurance would be compulsory for all employees in three major groups of industries—textile, engineering, and mineral and metal.

Occupations and Occupational Adjustment

How to find and succeed in your postwar job. By Frank S. Endicott. Scranton, Pa., International Textbook Co., 1946. 147 pp., forms, illus. $1.75.

Guidebook designed to meet the needs of maturing youth and adults seeking to adjust themselves to the postwar occupational world.

Selecting and operating a business of your own: A guide for choosing and setting up a small business enterprise. By Gustav E. Larson, Robert H. Johnson, Walter Magnes Teller. New York, Prentice-Hall, Inc., 1946. 364 pp., bibliographies. $3.

Selection of location, capital requirements, earnings possibilities, special problems, and the nature of the business are among the subjects discussed with respect to a variety of enterprises.

Establishing and operating an electrical appliance and radio shop. By Donald S. Parris and associates. Washington, U. S. Department of Commerce, Bureau of Foreign and Domestic Commerce, 1946. 199 pp., diagrams, plans, illus. (Industrial (small business) series, No. 28.) 35 cents, Superintendent of Documents, Washington.

Portrait and commercial photography. By Benjamin M. Pearson. Boston, Bellman Publishing Co., Inc., 1946. 21 pp., bibliography. (Vocational and professional monographs, No. 62.) 75 cents.

One of a series of pamphlets dealing with a wide range of vocational fields.

Old-Age Assistance, Etc.

Aged beneficiaries, assistance recipients, and the aged in the general population. By Jacob Fisher. (In Social Security Bulletin, Federal Security Agency, Social Security Board, Washington, June 1946, pp. 11–16. 15 cents, Superintendent of Documents, Washington.)

[*U. S.*] *Civil service retirement and disability fund—twenty-fifth annual report of the board of actuaries, fiscal year ended June 30, 1945.* Washington, U. S. Government Printing Office, 1946. 14 pp. (Senate Doc. No. 197, 79th Cong., 2d sess.)

Medico-sociological problems of an ageing population. By F. A. E. Crew, M.D. (In Lancet, London, April 27, 1946, pp. 597–600, chart. 1s.)

Social adjustment in old age—a research planning report. New York, Social Science Research Council, [1945?]. 222 pp.; processed.

Collection of eight reports: Characteristics of the population 60 years of age and over; The role of old persons; Comparative studies of old age; Demographic basis for the study of adjustment in old age; Social relationships; Employment problems of old persons; Social and financial problems of retirement; Personality, intelligence, and mental disorders. A comprehensive bibliography comprises 77 pages of the volume.

Personnel Management

Management can be human. By Harvey Stowers. New York, McGraw-Hill Book Co., 1946. 131 pp. $1.50.

Sets forth basic principles for building better relations between management and workers, and shows by the use of case histories how these principles can be successfully applied. The author is convinced that "management can be human only when the supervisors realize that their workers are human."

Railroad personnel practices. Washington, Association of American Railroads, 1946. 93 pp., forms, illus.

Findings and recommendations of a committee of railroad executives. There are chapters on reemployment of former service men and women, centralized hiring, employee service clubs, employee suggestion systems, group insurance, credit unions, and employee training.

Testing applicants for employment. New York, Metropolitan Life Insurance Co., Policyholders Service Bureau, [1946?]. 37 pp., bibliography; processed.

Training supervisors in human relations. New York, Metropolitan Life Insurance Co., Policyholders Service Bureau, [1946?]. 53 pp.; processed.

Prices

Prices of machinery, [1939–46]. Washington, U. S. Bureau of Labor Statistics, 1946. 6 pp. (Serial No. R. 1839; reprinted from Monthly Labor Review, March 1946.) Free.

Typical electric bills, cities of 50,000 population and more: Typical net monthly bills as of January 1, 1946, for residential, commercial, and industrial services. Washington, Federal Power Commission, 1946. 34 pp., charts. 25 cents.

Latin-American price trends. By Sylvia P. Bernstein. (In Foreign Commerce Weekly, U. S. Department of Commerce, Bureau of Foreign and Domestic Commerce, Washington, July 27, 1946, p. 9. 15 cents, Superintendent of Documents, Washington.)

Indexes of general cost of living (primarily of a workman's family), food prices, and general wholesale prices for 1939, 1944, and 1945, and, where available, for 1946. The information will be brought up to date monthly in Foreign Commerce Weekly.

Informes sobre la estabilización de precios, el control de la inflación y solicitudes de abastecimientos adicionales para Cuba en el año de 1945. Habana, Ministerio de Comercio, Oficina de Regulación de Precios y Abastecimiento, 1945. 69 pp., charts.

Includes index numbers of cost of food in Cuba, by month, 1940–45.

Production and Productivity of Labor

Full production without war. By Harold Loeb. Princeton, N. J., Princeton University Press, 1946. 284 pp., charts. $3.50.

Concerns the problem of preventing supply and demand from balancing at levels below full production and employment. This has occurred, it is stated, because under monopolistic competition demand tends to govern production, whereas according to classical economic theories of competition production governs demand. Various public "interferences" with business enterprises are necessary, it is stated, if full production is to be maintained. These adjustments are analyzed in detail, together with their proposed correlation by a flexible public works policy.

Management techniques for increasing labor productivity. New York, American Management Association, 1946. 51 pp., charts. (Production series No. 163.)

In the first article in this pamphlet, entitled "Economic considerations for production executives," it is stated that wage pressures initiated since the end of the war will increase the demand for labor-saving equipment, and the author discusses conditions affecting further mechanization. The second article is devoted to labor productivity and technological advances, with a discussion of various production incentives devised to stimulate man-hour output.

Productivity in agriculture, 1942–45. Washington, U. S. Bureau of Labor Statistics, 1946. 7 pp.; mimeographed. Free.

Productivity and unit labor cost in selected mining industries, 1935–45. Washington, U. S. Bureau of Labor Statistics, 1946. 9 pp.; mimeographed. Free.

Social Security

Financing social security. By Raymond E. Manning. Washington, U. S. Library of Congress, Legislative Reference Service, 1946. 118 pp., bibliography; mimeographed. (Public affairs bull. No. 46.) Furnished (free) to libraries only.

Reviews arguments for and against the pay-roll tax and alternatives. There are chapters on reserves, Government contributions, Townsend transactions tax, income tax, and a miscellaneous category.

Social insurance and other Government trust funds. (In Social Security Bulletin, Federal Security Agency, Social Security Board, Washington, May 1946, pp. 43–53. 15 cents, Superintendent of Documents, Washington.)

Analysis of 22 Government trust funds, the largest of which are the two Federal social-security funds (old-age and survivors and unemployment insurance); and a summary of statutory provisions showing, for each fund, source of support, administrator, eligible investments, etc.

Annual report of the [U. S.] Railroad Retirement Board, fiscal year ended June 30, 1945. Washington, 1946. 134 pp., charts.

Financial operations under the Railroad Retirement Act and the Railroad Unemployment Insurance Act are reviewed, as well as the Board's activities in connection with the recruitment and placement of railroad workers.

Beretning fra Invalideforsikringsretten for aaret 1944. Copenhagen, 1945. 50 pp.

Report of the Danish Invalidity Insurance Court for 1944, with some comparative data for other years. Statistics of administrative expenses include salaries (totals) paid to the staff, including medical officers, and costs of medical examinations of insured persons. Provisions of the legislation concerning the Invalidity Insurance Court and its activities are summarized in English, and English translations of table headings and certain other items are given.

Årsmelding nr. 48 fra Rikstrygdeverket, 1944. Oslo, [1945]. 24 pp.

Annual report on accident and sickness insurance in Norway in 1944.

Social insurance in Palestine and its reconstruction. By I. Kanievsky. Tel Aviv, General Federation of Jewish Labor in Palestine, Social Insurance Committee, 1946. 88 pp., charts, illus.

Account of the social services introduced by the General Federation of Jewish Labor, written by the director in charge of the services, together with recom-

mendations for government action with respect to social insurance, and information on social and labor conditions in Palestine.

Veterans' Affairs

Laws relating to veterans. Compiled by Elmer A. Lewis. Washington, U. S. Government Printing Office, 1946. 828 pp.
Covers Federal legislation enacted from September 2, 1914, to January 3, 1946.

Company on-the-job training programs for veterans. Washington, Chamber of Commerce of the United States, Department of Manufacture, 1946. 21 pp.; mimeographed.

Making home town plans work. New York, Crowell-Collier Publishing Co., 1946. 67 pp., charts. (Veteran's report No. 3.)
Description of the organization and operation of community programs to aid the returned serviceman in reorienting himself, based on data collected in 1945 from 533 communities.

Wages and Hours of Labor

Salary and wage data, Michigan cities of more than 10,000 population, hours of work, overtime policies, and bonuses, 1945–46. Ann Arbor, Michigan Municipal League, 1946. 17 pp.; mimeographed. (Information bull. No. 49.) $1.

Salaries of school clerical employees, 1944–45: Part I—Distributions and averages; Part II—Rates of pay. Washington, American Association of School Administrators and Research Division of National Education Association, 1946. 42 and 17 pp. (Circulars Nos. 1 and 2.) 50 cents each.

Wage structure in bituminous-coal mining, fall of 1945. Washington, U. S. Bureau of Labor Statistics, 1946. 10 pp. (Bull. No. 867; reprinted from Monthly Labor Review, April 1946.) 5 cents, Superintendent of Documents, Washington.

Wage structure of the machine-tool accessories industry, January 1945. Washington, U. S. Bureau of Labor Statistics, 1946. 13 pp. (Bull. No. 868; reprinted from Monthly Labor Review, March 1946.) 5 cents, Superintendent of Documents, Washington.

Work and wage experience studies: Report No. 1, St. Paul aircraft parts workers in wartime; Report No. 2, Mobile shipyard workers in wartime; Report No. 3, War and postwar experiences of skilled cotton-textile workers in New England; Report No. 4, Wartime shipbuilding workers of Wilmington, Delaware. Washington, U. S. Bureau of Labor Statistics, 1945 and 1946. Variously paged; mimeographed. Free.

International Typographical Union of North America minimum wage scale pamphlet, year ending May 20, 1946. Indianapolis, 1946. 45 pp.
Information on wage rates, hours, vacations with pay, sick leave, holidays, severance pay, period of contract, etc., on newspaper and book and job work.

Earnings, hours, and mobility of labor. By J. L. Nicholson. (In Bulletin of Oxford University Institute of Statistics, Oxford, England, May 1946, pp. 146–163, diagrams. 2s. 6d.)
In the first part of this article, the writer summarizes changes in earnings and hours of labor in Great Britain from 1938 to July 1945, as shown in the semiannual reports of the Ministry of Labor, and discusses the factors responsible for the changes. In the second part, he considers the relationship between wages and wartime changes in the labor force of different industries, using elaborate statistical techniques to measure the mobility of labor.

Wages on the farm. By David Eccles. London, Signpost Press, 1945. 48 pp. 1s. net.
The author, a Conservative Member of Parliament, presents in this pamphlet a program for minimum guaranteed agricultural wages in Great Britain at, or above, the 1945 level, and for improved rural amenities, and discusses methods of bringing these reforms about.

General Reports

Structure of agricultural prices and wages in Colombia. By John A. Hopkins. (In Foreign Agriculture, U. S. Department of Agriculture, Office of Foreign Agricultural Relations, Washington, June–July 1946, pp. 82–96, map, charts. 10 cents, Superintendent of Documents, Washington.)

Comparison of agricultural labor requirements, prices, and wages in Colombia and the United States. Price and wage data are given for 1939, 1943, and June 1945.

Social Denmark: A survey of the Danish social legislation. Copenhagen, Socialt Tidsskrift, 1945. 475 pp., bibliography, charts, maps, illus. In English; translated from the Danish.

Major subjects of the eight chapters of the volume are social insurance, public assistance, prevention of disease and the hospitals, organization of the labor market (covering collective labor agreements, protection of workers, employment policy, employment exchanges and occupational guidance, and the social side of agriculture), education and popular enlightenment (including apprentice training), holidays and spare time, the housing question, and the cooperative movement.

Recommandations concernant l'élaboration d'une législation du travail, [*Haiti*]. By David H. Blelloch. Port-au-Prince, Conseil d'Administration de la Caisse d'Assurance Sociale d'Haiti et la Secrétairerie d'Etat du Travail, [1945?]. 65 pp.

Discusses social and labor conditions in Haiti and relevant existing laws, and makes suggestions for new legislation.

The economic situation of Switzerland, 1939–45. Basel, Swiss Bank Corporation, 1945. 42 pp.

Includes indexes of industrial activity, wholesale prices, and cost of living, and some information on wages and employment (with plans for relieving possible unemployment).

İş istatistikleri, 1937–43. Ankara, Turkey, Istatistik Genel Müdürlügü, 1945. 67 pp. (Neşriyat No. 243.)

This report of the Central Statistical Office of Turkey contains statistics of employment and industrial accidents in that country for the years 1937 to 1943, the first seven-year period under the Labor Code of 1936.

Development and welfare in the West Indies, 1943–44. By Sir Frank Stockdale. London, Colonial Office, 1945. 115 pp. (Colonial No. 189.) 2s. net, His Majesty's Stationery Office, London.

Employment, unemployment relief, labor and employer organizations, industrial relations, labor legislation, cost and standards of living, housing, development and welfare schemes, and other subjects are discussed.

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